

REPORT AND
RECOMMENDATIONS
TO THE CONGRESS
MARCH 1, 1994

REPORTS

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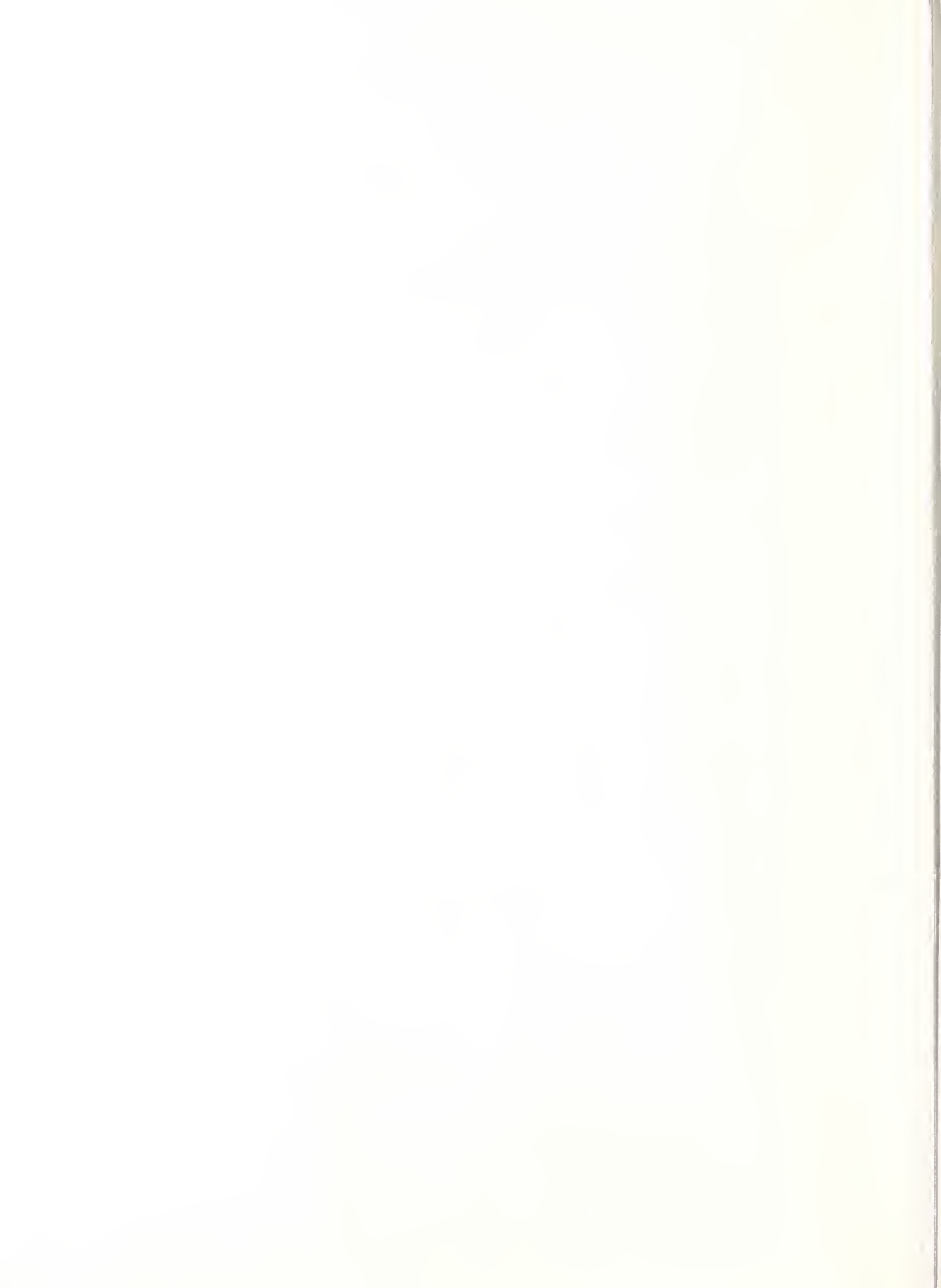
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PROSPECTIVE PAYMENT
ASSESSMENT COMMISSION

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RECOMMENDATIONS
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Deborah K. Williams
Jeannette A. Younes

Prospective Payment Assessment Commission



300 7th Street, S.W.
Suite 301B
Washington, D.C.
20024
Tel (202) 401-8986
Fax (202) 401-8739

March 1, 1994

The Honorable Al Gore
President of the Senate
United States Senate
Washington, D.C. 20510

Dear Mr. President:

I am hereby transmitting to the Congress the annual report of the Prospective Payment Assessment Commission as required by Section 1886(e)(3) of the Social Security Act as amended by Public Law 101-508. This report presents a discussion of major factors that have shaped the evolution of the hospital and discusses possible changes facing the hospital of the future. The report also contains 23 recommendations covering a range of topics, from broad issues concerning Medicare and health care reform to updating Medicare payment rates and refining certain aspects of Medicare payments to hospitals and other facilities. This report reflects the Commission's collective judgment about issues of substantial importance to beneficiaries, hospitals, other providers, and the Medicare program.

Sincerely,

Stuart H. Altman, Ph.D.
Chairman

Enclosure

Prospective Payment Assessment Commission



300 7th Street, S.W.
Suite 301B
Washington, D.C.
20024
Tel (202) 401-8986
Fax (202) 401-8739

March 1, 1994

The Honorable Thomas Foley
Speaker
United States House of Representatives
Washington, D.C. 20515

Dear Mr. Speaker:

I am hereby transmitting to the Congress the annual report of the Prospective Payment Assessment Commission as required by Section 1886(e)(3) of the Social Security Act as amended by Public Law 101-508. This report presents a discussion of major factors that have shaped the evolution of the hospital and discusses possible changes facing the hospital of the future. The report also contains 23 recommendations covering a range of topics, from broad issues concerning Medicare and health care reform to updating Medicare payment rates and refining certain aspects of Medicare payments to hospitals and other facilities. This report reflects the Commission's collective judgment about issues of substantial importance to beneficiaries, hospitals, other providers, and the Medicare program.

Sincerely,

Stuart H. Altman, Ph.D.
Chairman

Enclosure

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Executive Summary



Executive Summary

In this report, the Prospective Payment Assessment Commission (ProPAC) discusses major factors that have influenced how hospitals have evolved, looks at how hospitals have responded to changes in the health care environment, and suggests the future direction hospitals may take. The Commission also presents 23 recommendations covering a range of topics, from broad issues concerning Medicare and health care reform to updating Medicare payment rates and refining certain aspects of Medicare payments to hospitals and other facilities. The report is submitted directly to the Congress, although the Secretary of Health and Human Services is required to respond to the Commission's recommendations.

ProPAC's responsibilities have expanded from its original mandate of advising the Congress and the Secretary on the Medicare prospective payment system (PPS) for hospitals. These additional responsibilities include analyzing and developing prospective payment policies for all facility services furnished to Medicare beneficiaries and examining Medicaid hospital payment rates. In the past year, the Commission has submitted reports to the Congress on Medicare and the American health care system, global budgeting, and Medicaid disproportionate share payment adjustments. ProPAC, however, continues to devote substantial effort to updating and improving Medicare policies for paying hospitals.

THE FUTURE OF HOSPITALS

Hospitals—the central institutions in the American health care system—have long been the sole source of technology-oriented acute health care for the most complex cases. But because technological capabilities were limited, until the last 20 years or so one hospital was much like another. Each provided its community with essentially the same range of services and was structured in a similar manner. Today, hospitals offer a rich mix of complex, intensive services to a variety of patients. Relationships among hospitals, other institutional providers, and payers have become more complex, characterized by a broad range of ownership

arrangements and the sharing of financial risk. Additionally, the role physicians play in hospitals' operations has evolved markedly.

Two major forces—advances in medical technology and changes in financing mechanisms—have profoundly influenced the evolution of hospitals. Technological innovations not only have expanded the services hospitals furnish, but also have resulted in greater competition from other providers. The emergence of third-party payers has created a stream of revenues that financed these innovations.

As health spending has outpaced inflation, both public and private payers have sought ways to curb this growth. Medicare, for instance, has made radical changes in payment mechanisms to constrain the rise in government payments to hospitals. Private payers, too, have used various strategies to control the growth in payments, but with mixed success. For their part, hospitals have minimized cost-containment pressure by generating additional payments from private payers, a practice called "cost shifting."

How each hospital has evolved in response to technological advances, financing changes, and other developments has depended on its internal and external environments. The end result has been significant diversification in the hospital industry.

Hospitals will continue to encounter technological and financing changes. The greatest unknown, however, is the outcome of the current health care debate and how hospitals will fare under reform. Since they account for the largest portion of total health spending, hospitals will bear much of the pressure to alter the way care is delivered and paid for in the future. Hospitals' responses to these changes will differ, depending on the source and stringency of the pressure, and the circumstances facing each facility.

SUMMARY OF RECOMMENDATIONS

In Chapter 2, ProPAC presents 23 recommendations reflecting the Commission's concerns regarding health reform and Medicare payment policies.

The Commission believes these proposed changes are necessary for maintaining access to quality health care, encouraging productivity and cost effectiveness in the provision of care, and improving payment equity. The Commission developed its recommendations by setting priorities, analyzing information, and deliberating on the implications of alternative policies. ProPAC also pays close attention to the concerns of the Congress, the Administration, health care providers, third-party payers, enrollees, and the public. The Commission's recommendations are offered to comply with ProPAC's statutory mandate and to contribute to an informed, open debate about Medicare payment policies. For fiscal year 1995, the Commission's recommendations focused on three broad areas:

- Medicare and health care reform,
- Payment updates, and
- Other payment policies.

Medicare and Health Care Reform—The health care industry is facing major challenges as policy makers and legislators struggle to control health care expenditures and expand coverage to people without insurance. Several proposals have been introduced to reform the health care system. Some of these focus on incremental changes in the financing and delivery of health care; others call for fundamental restructuring of the existing system. Most include provisions that would affect the Medicare program.

The Health Security Act introduced by the President would fundamentally change the financing and delivery of health care. Under this proposal, most people under 65 would obtain health insurance coverage through regional or corporate alliances that would negotiate with health plans to provide medical services. Managed competition among plans is expected to control the growth in health care expenditures. As a contingency, however, premium rate increases would be limited if expenditure growth were not contained. Medicare would be retained as a separate program, although it would be subject to a number of changes and cost-saving measures.

In this report, the Commission comments on specific features of the Health Security Act and

other health reform activities as they pertain to the Medicare program. This discussion is found in Recommendations 1 through 8.

Payment Updates—Recommendations 9 through 14 present the Commission's recommended updates to the payment amounts to various facilities. These include operating and capital payments to hospitals paid under PPS, operating payments to facilities excluded from PPS, and the composite rate for dialysis services.

In examining each of these Medicare payment systems, the Commission recommends to the Congress an appropriate update amount for fiscal year 1995 payments. In addition, ProPAC considers the appropriateness of the base payment rate to which the update factor would be applied.

The Commission is mandated by law to submit to the Congress each year the appropriate update to the inpatient hospital operating payment rates under PPS. ProPAC considers several factors in developing this update: the hospital market basket index, scientific and technological advances, hospital productivity, case-mix change, and the quality and long-term cost-effectiveness of health care. For fiscal year 1995, the Commission recommends an average update of 2.7 percent to the standardized payment amounts: an increase of 2.2 percent for urban hospitals and of 5.3 percent for rural hospitals.

ProPAC's update recommendation for fiscal year 1995 operating payments is higher than the update already legislated by the Congress. ProPAC used its traditional approach of examining individually the factors that contribute to the update. The Commission believes this process results in an appropriate percentage to update the standardized payment amounts for fiscal year 1995.

In addition, the Commission recommends an update factor for the Federal capital payment rate. ProPAC follows an update framework similar to that used for the operating payment update. For fiscal year 1995, ProPAC recommends a 3.6 percent increase to the Federal capital payment rate for both urban and rural hospitals. When the transition to fully prospective capital payments is complete, a single update factor should be used for adjusting PPS operating and capital payment rates.

The Commission also considers the update for facilities currently excluded from PPS and the update to the composite payment rate for dialysis services. The facilities excluded from PPS are subject to the payment limitations and incentives established in the Tax Equity and Fiscal Responsibility Act of 1982. For fiscal year 1995, ProPAC recommends the target rates for these facilities should be updated by 2.7 percent. Finally, the Commission recommends that the composite payment rate for dialysis services should not be increased for fiscal year 1995.

Other Payment Policies—The Commission is concerned with all factors that might affect Medicare payments to facilities. In Recommendations 15 through 23, ProPAC highlights issues affecting Medicare payment specific to the hospital wage index, the nursing facility wage index, the outlier payment policy, the indirect medical education (IME) adjustment, and payment policies for hospital outpatient services.

ProPAC conducted additional analyses related to improving the hospital wage index. It recommends that the wage index be adjusted to remove the effect of occupational mix. Moreover, the implementation of a new wage index using hospital-specific labor market areas based on hospital geographic proximity would improve the accuracy of the wage index. The Commission also reexamined the appropriateness of a nursing facility wage index, and recommends collecting data so that such an index can be developed and used to adjust Medicare skilled nursing facility payments.

ProPAC supports the outlier payment provisions of the Omnibus Budget Reconciliation Act of 1993 and makes several additional recommendations to improve the policy for identifying outlier cases and determining outlier payments. The Commission recommends reducing the IME adjustment to PPS operating payments from 7.7 percent to 7.0 percent and retaining the IME adjustment until an alternative system for compensating hospital for these costs is adopted.

The Commission submits four recommendations regarding payment for hospital outpatient services. The need for a prospective payment system is reiterated. Until such a system can be implemented, the current payment formula to

calculate hospital payments for ambulatory surgery center-approved procedures, radiology services, and diagnostic services should be revised. In addition, beneficiary liability for hospital outpatient services should be reduced. Finally, the length of hospital outpatient observation stays should be limited.

RECOMMENDATIONS FOR FISCAL YEAR 1995

Medicare and Health Care Reform

Recommendation 1: Medicare, Medicaid, and Private Payer Payment and Coverage of the Uninsured

Health care reform will have a major effect on the Medicare and Medicaid programs and the care beneficiaries receive. The Commission believes substantial changes in program policies should be considered only with a health care reform plan that covers the uninsured and pays comparable rates for similar services. As Medicare and Medicaid have constrained payments, providers have obtained additional revenue from private payers rather than by reducing their costs. This increasing reliance on cost shifting concerns ProPAC because it is likely to have a negative effect on access to care for beneficiaries of government programs. Further, possible adverse effects on beneficiaries of slower growth in payments for hospital and other currently covered services must be carefully balanced against desirable effects of increased Medicare spending for new benefits proposed in the Health Security Act.

Recommendation 2: Payments to Hospitals Serving a Large Share of Low-Income Patients

The Health Security Act would substantially reduce Medicare disproportionate share payments, as universal coverage ameliorates many of the problems these payments are intended to address. The Commission believes the timing of any such reduction in Medicare payments should be coordinated with the extension of universal coverage, so that hospitals that provide care to low-income populations are not disadvantaged. As a result, payments would be targeted more effectively to the hospitals that provide care to these populations. Even so, the payments received by different

hospitals and the balance between payment levels for Medicare and other patients may be affected significantly. These changes should be structured to ensure that both the level and distribution of payments are appropriate. ProPAC intends to work with the Congress and the Secretary of Health and Human Services to monitor and study this issue.

Recommendation 3: Payments for Additional Patient Care Costs Incurred by Teaching Hospitals

ProPAC supports the explicit recognition by all payers of the higher patient care costs teaching institutions incur. The Commission believes such payments should be separated from patient care rates and paid through a fund similar to the Academic Health Center Account proposed in the Health Security Act. ProPAC is concerned, however, that a sharp reduction in the payments teaching hospitals receive from government payers may result in financial hardships for some of the nation's major hospitals. Constraints on payments from private payers may exacerbate this problem. Therefore, ProPAC recommends that the total level of funding and the formula for distributing payments through such a mechanism should be based on careful analysis of the costs teaching institutions incur in carrying out their functions and how these payments will affect graduate medical education and access to the care these facilities provide.

Recommendation 4: Graduate Medical Education Funding and Payment

ProPAC supports efforts to establish a funding mechanism for graduate medical education training programs that encompasses all payers, including Medicare. The Commission believes this mechanism should be separate from the payment received for patient care services. The level of funding and the distribution of payments should be determined according to the following principles:

- Funding for graduate medical education should be consistent with national work force goals, with respect to both the number of residents trained and their specialty distribution.
- Funding should support training for physicians and certain non-physician medical personnel who contribute to attaining these goals.

- Payment should be made to the training program, whether it is based in a hospital inpatient, hospital outpatient, or other ambulatory setting. The optimal method for allocating and distributing such payments needs to be determined.
- Payment for graduate medical education should be based on a national per resident amount, adjusted to recognize regional differences in residents' salaries and other factors that, upon further study, are found to be appropriate.

In addition, funds should be available to recognize the additional personnel costs of hospitals that operate programs that lose specialty training positions as a result of the process described above.

Recommendation 5: Quality of Care

The Commission believes there must be an effective quality assurance program for Medicare enrollees, especially given health reform's emphasis on cost control and proposed cutbacks in Medicare spending. The Peer Review Organization program should be continued but thoroughly evaluated. It should be replaced only by a program that has been determined to be more effective.

Recommendation 6: Improvements in Premium Risk Adjustment Methods

The Commission recommends that the Secretary undertake the research necessary to substantially improve current risk adjustment methods. Risk adjustment will be needed under many health reform proposals to ensure that the premiums paid to competing health plans accurately reflect the risk composition of their enrollees. Until major improvements can be made, some other mechanism may be needed to limit the potential impact of enrolling individuals whose care proves to be exceptionally costly.

Recommendation 7: Controlling Medicare Spending Across All Sites of Care

Medicare should continue to develop policies to monitor and control total expenditure growth across all sites of care. Payment methods should not unduly favor the choice of one site over another. They should also provide consistent incentives

to constrain increases in volume and service intensity across physicians and other providers.

Recommendation 8: Strengthening Medicare's Risk Contracting Program

The Commission recommends that the Secretary improve Medicare's risk-based, managed care program to give more Medicare beneficiaries the option of enrolling in managed care plans. To increase plan participation, deficiencies related to the risk adjustment formula and local differences in payments need to be corrected.

Payment Updates

Recommendation 9: Update Factor for Operating Payments to PPS Hospitals

For fiscal year 1995, the PPS standardized payment amounts should be updated to account for the following:

- The projected increase in the HCFA PPS market basket index, currently estimated at 3.7 percent;
- An adjustment of zero percentage points for the difference between the projected ProPAC and HCFA market baskets;
- A negative adjustment of 1.1 percentage points for substantial error in the fiscal year 1993 market basket forecast;
- A positive adjustment of 0.3 percentage points to reflect the cost-increasing effects of scientific and technological advances;
- A negative adjustment of 0.7 percentage points to encourage hospital productivity improvements; and
- A net adjustment of zero percentage points for case-mix change.

In addition, a positive adjustment of 3.1 percentage points should be made for hospitals in rural areas to complete the phaseout of the differential in standardized amounts between rural and other urban hospitals. ProPAC's recommendation would result in an estimated average update factor of 2.7 percent for fiscal year 1995: an increase of 2.2

percent for urban hospitals and of 5.3 percent for rural hospitals.

Recommendation 10: Update Factor for Capital Payments to PPS Hospitals

For fiscal year 1995, the Commission recommends that a formula-based approach be used to update capital payment rates. The capital update should include the following:

- The projected increase in a capital market basket index that measures one-year changes in a fixed basket of capital goods hospitals purchase, currently estimated at 3.4 percent;
- An adjustment of zero percentage points to correct for past forecast errors;
- An adjustment of zero percentage points to reflect changes in financing costs;
- A positive adjustment of 0.9 percentage points for scientific and technological advances;
- A negative adjustment of 0.7 percentage points to encourage hospital productivity; and
- A net adjustment of zero percentage points for case-mix change.

The Commission's recommendation would result in a 3.6 percent increase in the Federal capital payment rate for both urban and rural hospitals.

Recommendation 11: Single Operating and Capital Update Factor

The Commission recommends that when the transition to fully prospective capital payments is complete, a single update factor be used for adjusting PPS operating and capital payment rates. Based on ProPAC's recommended updates to the operating and capital payment rates, the total increase to a fully prospective combined payment rate would be 2.8 percent for fiscal year 1995.

Recommendation 12: Update Factor for Hospitals Paid on the Basis of Hospital-Specific Rates

The Commission believes payments based on hospital-specific base-year costs for sole community

hospitals should be updated by the average update given to all hospitals.

Recommendation 13: Update Factor for PPS-Excluded Hospitals and Distinct-Part Units

For fiscal year 1995, the target rates for PPS-excluded hospitals and distinct-part units should be updated by 2.7 percent. This recommendation accounts for the following:

- The projected increase in the HCFA PPS-excluded hospital market basket, currently estimated at 3.7 percent;
- An adjustment of zero percentage points for the difference between the projected ProPAC and HCFA market baskets;
- A negative adjustment of 1.0 percentage points for substantial error in the fiscal year 1993 market basket forecast; and
- An adjustment of zero percentage points for scientific and technological advances.

Recommendation 14: Update to the Composite Rate for Dialysis Services

The fiscal year 1995 update recommendation for the composite rate for dialysis services accounts for the following:

- The projected increase in the market basket for dialysis services in fiscal year 1995, estimated at 4.3 percent;
- A positive adjustment of 0.7 percentage points to reflect the additional costs associated with scientific and technological advances;
- A negative adjustment of 1.0 percentage points to encourage productivity improvements; and
- A negative discretionary adjustment of 4.0 percentage points to reflect the relationship between payments and estimated fiscal year 1994 costs.

This results in a net update recommendation of zero percent.

Other Payment Policies

Recommendation 15: Improvements in Hospital Wage Data

The Secretary should develop and implement improved methods for collecting data on employee compensation and paid hours of employment for hospital workers by occupational category. Once these data become available, the Secretary should implement an adjustment to the hospital wage index under PPS. This adjustment would correct the wage index for the inappropriate effects of including geographic differences in the mix of occupations employed.

Recommendation 16: Improvements in the PPS Hospital Wage Index

The Secretary should substantially revise the hospital wage index under PPS for fiscal year 1995. The revised wage index should be calculated using hospital-specific labor market definitions based on hospital geographic proximity measured by the air-mile distances between nearby hospitals. The Congress should repeal the current statutory provisions relating to geographic reclassification for the wage index.

Recommendation 17: Nursing Facility Wage Index

The Secretary should collect data on employee compensation and paid hours of employment for employees of nursing facilities that care for Medicare skilled nursing facility patients. Once these data become available, the Secretary should develop a nursing facility wage index and use it to adjust Medicare skilled nursing facility payments.

Recommendation 18: Improving Outlier Payment Policy

The Commission believes the outlier payment provisions of the Omnibus Budget Reconciliation Act of 1993 will improve the current policy for identifying outlier cases and determining outlier payments under PPS. However, the following changes also should be implemented for fiscal year 1995:

- The estimated cost of the case and the outlier payment amount should no longer be adjusted

to reflect the hospital's indirect medical education and disproportionate share status.

- The marginal cost factor for cost outliers should be increased to 80 percent.

These changes would further increase the effectiveness of outlier payment in protecting against the risk of large losses on some cases. They would also improve the distribution of outlier payments across hospitals, including hospitals that receive a large number of transfer cases.

Recommendation 19: Level of the Indirect Medical Education Adjustment to PPS Operating Payments

The Commission recommends that the indirect medical education adjustment to PPS operating payments be reduced from its current level of 7.7 percent to 7.0 percent for fiscal year 1995. This reduction should be implemented with the anticipated decrease in indirect medical education payments returned to all hospitals through a proportionate increase in the standardized payment amounts. The Commission also recommends continuation of the indirect medical education adjustment to PPS payments until an alternative system of compensating appropriately for the higher costs of patient care in teaching institutions is fully operational.

Recommendation 20: Prospective Payment Method for Outpatient Services

The Commission believes a prospective payment system for hospital outpatient services should be implemented. Outpatient payment reform should result in consistent policies across all sites and providers. Payment should be based on a prospective price per unit of service until other methods

can be developed that would appropriately control the volume of services. The payment rate should be adjusted to reflect justifiable cost differences across settings.

Recommendation 21: Revision of the Payment Formula for Outpatient Services

Until prospective payment systems can be implemented for hospital outpatient services, the blend formula used to calculate hospital payments for ambulatory surgery center-approved procedures, radiology services, and diagnostic services should be revised. The formula should subtract beneficiary copayment after the total payment has been calculated. The resulting reduction in Medicare program payments to hospitals should be used to partially offset increases in program expenditures due to reducing beneficiary liability.

Recommendation 22: Beneficiary Liability for Hospital Outpatient Services

Beneficiary coinsurance for hospital outpatient services should be limited to 20 percent of the Medicare-allowed payment, as it is in other settings. For services not paid on a prospective basis, beneficiary copayment would need to be estimated because it is not known at the time of service delivery.

Recommendation 23: Limit the Length of Outpatient Observation Stays

The Commission recommends limiting the length of hospital outpatient observation stays. Further, these changes should be coordinated with Peer Review Organizations so that appropriate short stay admissions are not denied. ProPAC supports HCFA's efforts in this regard.



Chapter 1

The Future of Hospitals



The Future of Hospitals

Hospitals—the central institutions in the American health care system—have long been the sole source of technology-oriented acute health care for the most complex cases. But because the capabilities of technology were limited, until the last 20 years or so one hospital was much like another. Each provided its community with essentially the same range of services and was structured in a similar manner.

This is no longer the case. Changes in medical science and technology and the financing of services have required hospitals to become very different entities. Today, hospitals offer a rich mix of complex, intensive services to a variety of patients. Relationships among hospitals, other institutional providers, and payers have become more complex as well, incorporating jointly produced services and financial risk sharing. The role of physicians in hospitals' operations has also evolved. Because of the wider range of services, patients, and institutional arrangements, hospitals are now a much more diverse group of medical care facilities, with as many differences as similarities.

The Prospective Payment Assessment Commission (ProPAC), created in 1983 by the legislation that established the Medicare prospective payment system (PPS) for inpatient hospital services, advises the Congress and the Secretary of Health and Human Services on policies affecting payment for Medicare services in hospitals and other institutional settings. It is thus appropriate that the Commission look at changes that have affected hospitals in recent years and how hospitals have responded. This chapter does just that, providing a context for the recommendations in Chapter 2 on changes to Medicare payment policy. The chapter concludes by examining what lies ahead for hospitals, as government and private payers attempt to curb health care spending and as comprehensive health reform is debated by the Congress.

Several major factors have influenced how hospitals have evolved. The continuous introduction

of new technological capabilities has led to increases in the intensity of inpatient services for the acutely ill. These advances have also allowed services formerly provided only to hospital inpatients to be furnished in ambulatory settings. Consequently, new providers have entered the health care market, competing with hospitals for clients.

Changes in financing, limitations by insurers on using specific services, and increased competition have contributed to unprecedented declines in inpatient hospital utilization. In 1992, for instance, there were 5.5 million fewer hospital admissions than in 1982, despite a 10 percent population increase. The average length of a hospital stay also fell to 6.4 days from 7.2 days, even though the average case was more complex. Total health care expenditures, however, have continued to rise at a dramatic rate, consuming 14 percent of the nation's gross domestic product in 1992. As a result, payers have been pressed to reevaluate their cost-based and charge-based payment practices and to find ways to reduce their financial risk.

Hospitals have responded to the marked declines in inpatient service use and constrained payments from public and private payers by actively seeking new sources of revenue. They have expanded their capacity to furnish ambulatory surgery and other outpatient services and developed specialized units to provide inpatient psychiatric, rehabilitation, and subacute nursing care. In addition, many have begun to offer home health and various community-based services. Others have concentrated on eliminating unprofitable cost centers or turned to more revenue-enhancing activities. Some, for instance, have become specialized facilities like psychiatric or rehabilitation hospitals, while in rural areas, some small hospitals have eliminated inpatient beds and become outpatient centers. Over time, hospitals have modified their relationships with insurers, other providers, and physicians and have attempted to curb expenses to strengthen their market position.

The configuration of the hospital represents a complex interaction between financing, organizing, and providing specific services in a local environment. Recently, for example, insurers and other payers have strengthened efforts to reduce payments to hospitals and other providers, and implemented utilization control activities. These financial pressures have forced hospitals to assume more risk than was the case under charge-based or cost-based reimbursement. Additionally, hospitals have had to take a closer look at whether to add new technologies and services.

Although for the past decade hospitals have been a major target of governmental cost control—primarily through Medicare and Medicaid payment policy—spending for the services they provide almost tripled between 1980 and 1991, from \$102 billion to \$289 billion. Total health care expenditures, however, have risen even more rapidly. Consequently, policy makers are currently debating how to reform the health care system to rein in the growth of public and private spending, while also expanding coverage to the nearly 39 million Americans who are uninsured. Even if reform is gradual and not comprehensive, hospitals will be pressured to reduce costs and generate new revenues by expanding service capacity. If comprehensive reform is enacted, the fundamental relationships among payers, physicians, and other types of providers may change markedly. The evolution of individual hospitals will depend heavily on how health reform affects each facility's local market, patient population, payer mix, and regulatory environment.

FACTORS AFFECTING HOW HOSPITALS HAVE EVOLVED

The health care environment has undergone radical changes over the past two decades and is on the threshold of even greater ones. Two major forces—advances in medical technology and financing mechanisms—have profoundly influenced hospitals. Technological innovations have expanded the services hospitals furnish and led to increased competition from other providers. Until recently, a steady stream of revenues from third-party cost-based and charge-based payers financed these innovations. Increasingly, as payment policies have changed hospitals have used higher payments from some payers to cover losses created by lower

payments from others. This has allowed the continued expansion of services even as certain payers have attempted to limit expenditures.

Technological Advances

Recent technological advances affecting the hospital industry range from the development of new pharmaceutical and surgical instruments to expensive diagnostic equipment like magnetic resonance imaging devices (MRIs).

During the 1970s and early 1980s, hospitals were quick to adopt new technologies even when clinical indications for their appropriate use were still largely unstudied.¹ Computerized tomography (CT) scanners are illustrative. This technology first appeared in 1973; by 1985, almost all community hospitals with more than 300 beds had a CT unit, even though purchase prices averaged about \$500,000.² Similarly, in 1981, 14.8 percent of hospitals had cardiac catheterization capacity; by 1992, this had risen to 27.6 percent (see Table 1-1). Hospitals have also increased their magnetic resonance imaging, megavolt radiation therapy, and open-heart surgery capabilities since the beginning of the 1980s.

Because it was so costly, most state-of-the-art equipment traditionally was purchased only by hospitals. But new technological developments, along with advances in medical expertise, have expanded the ability of outpatient providers to offer services in competing sites. The number of ambulatory surgery centers, for example, mushroomed from 239 in 1983 to 1,556 in 1991.³

Technological developments not only have allowed hospitals and other providers to offer a broader array of services, but also have enabled more people and conditions to be treated. The expanded volume that accompanies both new and existing technologies contributes more to the rise in health care expenditures than does the cost of the technological devices themselves. Consequently, if frequently used, even relatively inexpensive innovations can contribute substantially to health care spending. As the supply of technology extends beyond hospitals and the demand for these services increases, utilization may grow more rapidly, thus driving up health care expenditures.

Table 1-1. High-Technology Services Provided by Hospitals, Selected Years (In Percent)

Year	Cardiac Catheterization	CT Scan	Lithotripsy (ESWL)	Magnetic Resonance Imaging	Megavolt Radiation Therapy	Open-Heart Surgery	SPECT
1981	14.8%	21.4%	--	--	14.5%	9.6%	--
1985	16.8	48.5	0.8%	--	15.2	11.1	--
1990	24.1	61.1	5.4	15.6%	17.0	14.7	16.2%
1992	27.6	65.9	7.2	21.3	17.5	16.0	24.0

Note: CT = computerized tomography. ESWL = extracorporeal shock wave lithotripsy. SPECT = single photon emission computerized tomography. Includes all Federal, nonfederal, general acute care, long-term care, and psychiatric hospitals as well as hospital units of institutions.

SOURCE: American Hospital Association, *Hospital Statistics*, 1981, and Annual Survey of Hospitals, 1985, 1990, and 1992.

Financing Changes

Advances in technology have raised the cost of medical care because they have permitted the treatment of more complex cases. As the cost of providing such care exceeded the ability of most individuals to pay, a third party joined the hospital-patient relationship. This third party initially was a private insurance plan that helped individuals share the risk of costly illness. In 1965, the government joined the payer mix with the creation of the Medicare and Medicaid programs. For many years, government and private payers collected funds and distributed payments to hospitals for the care of their beneficiaries, but did not become involved in decisions relating to the services that were provided, the site of care, or the type of provider. Payments to providers were made on the basis of costs or charges, which allowed revenues to increase directly as costs rose.

But with health care expenditures accelerating much more rapidly than general inflation, insurance premiums grew markedly. This not only threatened the ability and willingness of employers to fund higher premiums, but also affected individuals by driving up out-of-pocket payments for many services. Third-party payers responded by seeking ways to slow the growth—particularly that in hospitals because they had high costs per case and accounted for a major share of total health care spending. Responding to skyrocketing government payments, Medicare in the early 1980s replaced cost-based hospital payment with the prospective payment system. This system allowed Medicare to reduce the growth of its hospital payments. While some private insurers were also able to control payment growth, most were not.

Hospitals have attempted to generate revenue to cover losses from uncompensated care and

below-cost payments for Medicaid and Medicare patients by raising charges to private insurers. This practice is called “cost shifting.” In addition, hospitals have actively sought other sources of revenue. In 1981 net revenue gains from private insurers equaled 5.0 percent of total hospital costs, while in 1991 this figure had risen to 11.6 percent (see Table 1-2). This largely offset losses from Medicare, which increased from 1.0 percent to 4.4 percent, and from Medicaid, which rose from 0.7 percent to 2.3 percent of total costs. Depending on their payer mix, however, hospitals differ in their ability to cost shift. Those with large uncompensated care patient populations and few generously paying privately insured patients, for example, have had limited ability to cost shift. By contrast, other types of hospitals—particularly those with a large proportion of privately insured patients—have found it easier to cost shift.

The array of providers and payers and the lack of adequate coordination among them also encourages

Table 1-2. Hospital Losses and Gains as a Percentage of Costs, by Payment Category, Selected Years

Year	Medicare	Medicaid	Uncompensated Care	Private Payers
1981	-1.0%	-0.7%	-3.3%	5.0%
1983	-1.2	-0.8	-3.6	7.0
1985	0.4	-1.0	-4.4	6.7
1987	-0.7	-1.7	-4.4	8.2
1989	-3.3	-2.5	-4.4	8.9
1991	-4.4	-2.3	-4.4	11.6

Note: For each payment category, losses or gains are the difference between the cost of providing care and the payment received. Operating subsidies from state and local governments are considered payments for uncompensated care patients.

SOURCE: ProPAC analysis of data from the American Hospital Association Annual Survey of Hospitals.

shifts in site of care by driving up use and expanding capacity in those settings that are not experiencing as much pressure to contain costs. For example, while prospective payment has slowed the growth of Medicare payments for inpatient care, service utilization in post-acute and ambulatory settings has exploded, with a corresponding increase in expenditures.

Questioning the medical appropriateness and need for many hospital admissions, third-party payers have adopted policies to encourage the use of less costly providers and settings. Many private insurers have turned to managed care arrangements, using financial incentives, preferred provider agreements, and increased utilization review to curb the use of inpatient hospital care. Private payers are also increasingly regulating and limiting what they will cover and how much they will reimburse, giving hospitals incentives to change the mix of services they provide. Government, on the other hand, has focused its efforts on evaluating, through utilization review, whether specific services should be furnished and determining the setting in which services must be provided. Medicare, for example, requires performance of almost all cataract surgery on an outpatient basis. Both public and private payers have attempted to influence the site and provision of services through preadmission certification and retrospective claims review with possible denial of payment.

Legal and Regulatory Environments

The legal and regulatory environments that hospitals face at both the Federal and state levels also affect their financial condition and organization of service delivery. The Federal government influences hospitals, for example, through antitrust and tax laws. These regulations significantly affect hospitals' ability to respond to financial pressures by acquiring or contracting with other health care providers.

Many states are considering or in the process of enacting comprehensive health reform legislation that will influence how hospitals are paid and which services are provided, even in the absence of Federal health reform.⁴ Several states—among them Vermont, North Dakota, Florida, and Minnesota—are crafting cost-containment strategies

that include expenditure targets or global caps on health care spending and encourage or mandate the development of managed care networks. Minnesota has established state boards to oversee major capital expenditures and to foster collaboration among providers. Vermont is preparing to implement payment limits for all providers within the state, while providing health insurance to all its residents. Hawaii has had universal health insurance coverage for 20 years. If states successfully lower the rates of increase in health care expenditures, hospitals will see their revenues constrained and their ability to cost shift among payers limited.

HOSPITAL RESPONSES TO CHANGES IN THE HEALTH CARE ENVIRONMENT

How an individual hospital has evolved in response to technological advances, financing changes, and legal or regulatory developments has depended on the hospital's internal and external environments. Among their responses are changes in the services provided; attempts to control cost growth; and innovative arrangements among hospitals, other providers, and insurers. The end result has been significant diversification in the hospital industry.

Services Provided

A combination of fewer admissions and shorter stays has encouraged hospitals to seek alternative sources of revenue. Inpatient admissions for the population 65 and over decreased with the implementation of PPS in 1983, but began growing again in 1986. Among the nonelderly, both the number and rate of inpatient admissions have continued to drop. Average length of stay fell considerably after PPS was introduced and has shown only modest changes since then.

Some hospitals have responded to the decline in acute inpatient admissions by targeting different patient populations. If hospitals convert to specialty status, they also may be shielded from stringent cost containment. In particular, they are exempt from PPS. Since 1980, the number of general medical and surgical hospitals has decreased by 11.2 percent, while the number of psychiatric hospitals has accelerated by 41.8 percent and the number of other specialty hospitals has grown by 7.3 percent (see Table 1-3).

Table 1-3. U.S. Hospitals, by Hospital Category, Selected Years

Hospital Category	1980	1985	1990	1992	Percent Change 1980-1992
All hospitals	6,965	6,872	6,649	6,539	-6.1%
Short term	6,407	6,339	6,141	6,092	-4.9
Long term	558	533	508	447	-19.9
General medical and surgical	6,105	5,961	5,566	5,424	-11.2
Psychiatric	558	629	774	791	41.8
Tuberculosis and other specialty	302	282	309	324	7.3
Community*	5,830	5,732	5,384	5,292	-9.2
Noncommunity	1,135	1,140	1,265	1,247	9.9
6-24 beds	327	267	301	294	-10.1
25-49 beds	1,209	1,134	1,095	1,078	-18.8
50-99 beds	1,674	1,666	1,633	1,595	-4.7
100-199 beds	1,567	1,618	1,562	1,572	0.3
200-299 beds	802	848	830	823	2.6
300-399 beds	484	507	503	489	1.0
400-499 beds	334	301	276	256	-23.4
500+ beds	568	531	449	432	-23.9
Voluntary	3,505	3,544	3,388	3,363	-4.1
Proprietary	891	1,052	1,139	1,134	27.3
Federal government	359	343	337	325	-9.5
Nonfederal government	2,210	1,933	1,785	1,717	-22.3
Residency training	1,257	1,232	1,249	1,223	-2.7
Medical school affiliation	997	1,120	1,238	1,154	15.7
Council of Teaching Hospitals member	406	454	387	381	-6.2
Urban	3,791	3,959	3,937	4,030	1.8
Rural	3,174	2,913	2,712	2,509	-20.5
New England	373	361	341	331	-11.3
Middle Atlantic	800	761	726	710	-11.3
South Atlantic	1,026	1,037	1,050	1,043	1.7
East North Central	1,060	1,022	959	957	-9.7
East South Central	548	547	532	523	-4.6
West North Central	896	883	846	820	-8.5
West South Central	955	972	943	919	-3.8
Mountain	448	462	464	464	3.6
Pacific	859	827	788	772	-10.1

* Community hospitals include nonfederal short-term general and some specialty hospitals.

SOURCE: American Hospital Association Annual Survey of Hospitals.

The significance of non-inpatient and skilled nursing services also has increased, although it varies by hospital location (see Table 1-4). In 1985 about 40 percent of rural community hospitals reported having any organized outpatient service; by 1992, more than 84 percent had this capability. While 17 percent of rural hospitals surveyed derived more than half of net patient care revenues

in 1993 from ambulatory services, this was true for only about 6 percent of urban hospitals (see Table 1-5). These revenues were also a larger share of net patient care revenues for non-teaching than for teaching hospitals.

Skilled nursing services were provided by 34 percent of community hospitals in 1992, compared

Table 1-4. Non-Inpatient and Skilled Nursing Services Provided by Community Hospitals, by Location, Selected Years (In Percent)

Location/Year	Any Organized Outpatient Services ^a	Surgery ^b	Psychiatric	Alcohol/Drug Dependency	Rehabilitation	Home Health	Skilled Nursing ^c
All hospitals							
1985	54.1%	93.4%	15.3%	16.1%	39.3%	29.7%	18.8%
1990	85.2	94.7	19.6	20.5	51.5	35.6	22.3
1992	88.9	94.4	21.9	21.0	55.0	38.0	34.0
Urban							
1985	66.9	95.7	23.6	22.9	54.9	31.8	11.1
1990	90.0	95.0	29.0	28.6	66.2	34.4	18.7
1992	92.6	94.7	31.2	28.8	67.3	35.8	26.0
Rural							
1985	39.3	90.7	5.8	8.2	21.3	27.4	27.6
1990	79.6	94.4	8.4	10.8	34.2	37.1	26.4
1992	84.1	94.1	9.9	10.9	39.0	40.9	44.4

^a Trends in responses may reflect, in part, a change in the survey question between 1985 and 1990.

^b Hospitals may provide outpatient surgery without having an organized outpatient department.

^c Data for 1985 reflect the presence of skilled nursing services anywhere in the hospital. Data for 1990 and 1992 reflect the presence of a separate skilled nursing unit.

SOURCE: American Hospital Association Annual Survey of Hospitals.

with 18.8 percent in 1985. Further, a significantly higher proportion of rural, compared with urban, hospitals furnished this care. This may partly reflect the attempts of rural institutions to compensate for reduced inpatient utilization by expanding skilled nursing care capacity. The percentage of rural

hospitals with swing beds (beds certified by Medicare as either acute care or skilled nursing beds) has also risen.

Hospitals have increasingly added home care capacity as well. Hospital home care visits doubled

Table 1-5. Hospital Net Patient Care Revenues from Ambulatory Services, by Hospital Category, 1993 (In Percent)

Hospital Category*	Number of Hospitals	Net Patient Care Revenues from Ambulatory Services (In Percent)			
		0-10	11-25	26-50	Over 50
Total	1,495	8.7%	27.6%	49.1%	11.4%
Atlantic	400	11.0	37.8	42.0	5.8
East Central	391	6.6	24.0	54.7	11.8
West Central	404	8.9	23.8	50.5	14.4
Far West	300	8.0	24.0	49.3	14.7
Urban	736	9.5	39.8	41.6	5.7
Rural	759	7.9	15.8	56.4	17.0
Teaching	233	13.3	54.0	27.0	3.9
Non-teaching	1,262	7.8	22.7	53.2	12.8

Note: Rows may not add to 100 due to survey item non-response.

* Atlantic includes the New England, Middle Atlantic, and South Atlantic Census divisions. East Central includes the East North Central and East South Central Census divisions. West Central includes the West North Central and West South Central Census divisions. Far West includes the Mountain and Pacific Census divisions. Teaching hospitals are those with more than 5 percent professional time spent teaching.

SOURCE: Survey of Hospital-Physician Relations conducted by MACRO International Inc., under contract to ProPAC.

between 1980 and 1990, from 6.2 million to 12.3 million.⁵ Compared with smaller hospitals, larger ones had more visits.⁶ The percentage of community hospitals operating home care programs, however, is not growing as rapidly as the use of home care services.

During the 1970s and 1980s, many hospitals expanded their outpatient departments and added ambulatory surgery centers. On average, 37 percent of hospital equipment is devoted to meeting outpatient demand.⁷ This expansion has had a major impact on hospital revenues. About 25 percent of hospital revenues, on average, now come from outpatient services (see Table 1-6). While inpatient admissions have declined by about 14 percent since 1980, nonemergency outpatient visits have more than doubled (see Table 1-7). Similarly, more than half of hospital surgical procedures in 1992 were performed on an outpatient basis, compared with only 16.3 percent in 1980.

Along with expanding their service capacity, hospitals have also increased their labor pool to administer the new services. The number of full-time equivalent personnel (FTEs) per patient has grown steadily since the 1970s (see Table 1-8). In part this reflects the surge in outpatient hospital services, since FTEs employed by hospitals may work in either inpatient or outpatient departments. Nonetheless, labor costs as a percentage of total hospital costs have been decreasing, while capital costs are increasing as a percentage of total costs.

Attempts to Control Growth in Costs

Financial pressures on hospitals have spurred the growth in services to augment revenues and have fostered a greater reliance on cost shifting. As a

result of these efforts, in aggregate, hospitals have maintained positive total revenue margins. In 1991, the total margin was 4.3 percent—higher than at any time before the introduction of PPS.

However, as government and private insurers have stepped-up their cost-containment efforts, hospitals are less able to compensate for losses. Therefore, hospitals must increase efforts to reduce costs and indeed have done so. After peaking at 5.0 percent in 1992, annual real growth (above general inflation) in hospital costs per case dropped to 3.2 percent in the first quarter of 1993 and to 1.0 percent in the third quarter. Whether this is a one-time phenomenon or the beginning of a trend is uncertain.

Arrangements with Other Hospitals, Facilities, and Insurers

Hospitals have adopted a number of organizational strategies to respond to changes in their operating environment. They have, for instance, merged with, acquired, or contracted with other hospitals and providers. They have also developed more complex relationships with insurers.

During the 1980s, hospitals tended to diversify by acquiring facilities or businesses (such as parking lots or non-health care businesses) that often were unrelated to their basic mission. Many of these investments were unprofitable, partly because hospital administrators lacked the skills to manage non-acute care ventures.⁸ In the 1990s, however, hospital diversification efforts have focused on reducing costs and offering a wider range of services to large employers and purchasing coalitions through managed care contracts.⁹

Extensive mergers and acquisitions during the 1980s led to the growth in the number of multihospital systems and in the percentage of institutions that belonged to these systems (see Table 1-9). Between 1979 and 1992, the proportion of hospitals that were members of multihospital systems increased from 27.1 percent to 43.2 percent. These systems were thought to produce economies of scale and scope, but whether they are more efficient is debatable.¹⁰ The fact that the number of formal multihospital systems actually declined between 1990 and 1992 may reflect a trend toward the use of less formal contractual arrangements, as well as mergers of existing systems.

Table 1-6. Community Hospital Revenues, by Type of Service, Selected Years (In Percent)

Year	Inpatient	Outpatient	Other
1980	83.2%	12.5%	4.3%
1985	79.3	16.1	4.6
1990	72.5	22.5	5.0
1992	69.8	25.3	4.9

SOURCE: American Hospital Association National Hospital Panel Survey.

Table 1-7. Inpatient and Outpatient Use of Services in Community Hospitals, Selected Years

Year	Inpatient Services (In Thousands)		Outpatient Visits (In Thousands)		Surgical Procedures (In Percent)	
	Admissions	Days	Emergency	Other	Inpatient	Outpatient
1980	36,143	273,085	77,245	125,064	83.7%	16.3%
1985	33,449	236,619	74,547	144,169	65.4	34.6
1990	31,181	225,972	86,693	214,636	49.5	50.5
1992	31,034	221,047	90,769	254,772	46.2	53.8
Percent change 1980-1992	-14.1%	-19.1%	17.5%	103.7%	--	--

SOURCE: American Hospital Association Annual Survey of Hospitals.

Hospitals have also developed innovative contractual arrangements with other providers. Some rural hospitals, for example, have dealt with declining population bases and the inability to provide high-technology services to the communities they serve by setting up rural networks or establishing telemedicine or computer information linkages with large urban hospitals and other providers. Such linkages have changed the configuration of the rural hospital.

Financial pressures have also stimulated the growth of managed care, which has substantially altered the nature of relationships between hospitals and insurers. For example, hospitals may assume more financial risk under a capitated payment system. Types of managed care arrangements differ substantially, however; the degree of control over physician and other provider decision making—and thus utilization—consequently differs. Health maintenance organizations (HMOs) in particular attempt

Table 1-8. National Hospital Employee Costs and Personnel in Nonfederal Short-Term Hospitals, 1971-1991

Year	Total Costs for Inpatient Care (In Billions)	Employee Costs as a Percentage of Total Costs ^a	Personnel ^b	
			Total (In Thousands)	Number Per 100 Patients
1971	\$22.4	63.9%	1,999	272
1972	25.5	62.6	2,056	278
1973	28.5	61.8	2,149	280
1974	32.8	60.7	2,289	289
1975	39.1	59.4	2,399	298
1976	45.4	57.9	2,483	304
1977	51.8	57.5	2,581	315
1978	58.3	57.2	2,662	323
1979	66.2	57.0	2,762	328
1980	77.0	56.4	2,879	334
1981	90.7	56.7	3,039	347
1982	105.1	56.7	3,110	353
1983	116.6	56.5	3,102	357
1984	123.6	56.1	3,023	367
1985	130.7	55.2	3,003	385
1986	140.9	53.9	3,032	392
1987	152.9	53.1	3,120	400
1988	168.9	52.9	3,209	404
1989	185.2	53.0	3,307	411
1990	203.9	53.6	3,423	417
1991	225.2	53.8	3,539	427

^a Includes employee payroll and benefit costs; excludes contracted labor services.^b Full-time equivalent personnel.SOURCE: National Center for Health Statistics, *Health, United States, 1992* (Hyattsville, Maryland: Public Health Service, 1993).

Table 1-9. Multihospital Systems, 1979-1992

Year	Number of Systems	Number of Hospitals in Systems	Percent of All Hospitals
1979	267	1,797	27.1%
1980	256	1,877	28.4
1981	256	1,924	29.2
1982	243	1,958	29.8
1983	249	2,050	31.3
1984	250	2,208	33.8
1985	268	2,477	37.9
1986	278	2,514	38.7
1987	303	2,567	39.6
1988	303	2,572	40.0
1989	307	2,901	43.2
1990	311	2,906	43.7
1991	309	2,873	43.3
1992	300	2,826	43.2
Percent change			
1979-1992	12.4%	57.3%	--

Note: Increases between 1988 and 1989 reflect, in part, inclusion of Federal hospitals in 1989 and thereafter.

SOURCE: American Hospital Association, *Directory of Multihospital Systems, 1980-1987, AHA Guide, 1988-1993, Financial Growth and Diversification of Hospitals and Multihospital Systems, 1988, Data Book on Multihospital Systems, 1980-1985, Hospital Statistics, 1992-93, and Annual Survey of Hospitals, 1992.*

to control expenditures primarily by reducing the use of inpatient hospital care. Staff and group model HMOs exercise more control over their employees than do independent practice associations or preferred provider organizations (PPOs).

The growth in the managed care industry has been well-documented, although the rate of growth has not been uniform throughout the country.¹¹ In the West Census region in 1992, for instance, 25 percent of the population was enrolled in some sort of HMO, compared with 7.8 percent in the South. The implementation of managed care plans has also differed throughout the country. The average managed care plan in the Pacific Census division contracts with 60 hospitals, while that in New England contracts with 22 hospitals.

As managed care market power has grown, more hospitals have begun contracting with HMOs and PPOs (see Table 1-10). This trend is reflected in the increased importance of managed care as a source of revenue. In 1993, 15.6 percent of hospitals in the Far West and 7.2 percent of hospitals in the East Central part of the country reported that more than 25 percent of their net patient care rev-

enues came from HMOs or PPOs (see Table 1-11). Urban hospitals received more, on average, from HMOs and PPOs than did rural hospitals, although 13.6 percent of rural hospitals reported receiving more than 10 percent of revenues from these sources.

Arrangements with Physicians

While hospitals provide the buildings, equipment, and staff necessary to furnish complex inpatient (and other) services, they cannot operate without the cooperation of physicians, who admit, treat, and discharge patients. Evidence suggests that a large portion of total health care expenditures (an estimated 50 percent to 80 percent or more) are directly influenced—if not directly controlled—by physicians.¹² In addition, physicians may influence hospitals' nonoperating expenditures by advocating particular types of capital investments.

As hospitals have assumed more financial risk, they have increasingly pressured physicians to control their costs and use of hospital services through internal management strategies and contractual relationships that call for shared financial risk with doctors. How well hospitals and physicians work together to control costs and improve quality is unclear. Reluctant to surrender their autonomy, physicians have largely been able to resist hospitals' efforts to modify their practice styles. Therefore, many hospital administrators concentrated more on maximizing revenues during the 1980s than on engaging physicians as partners in helping them curtail spending. This strategy seems to be changing in the 1990s as hospitals and physicians increasingly recognize their interrelated roles and responsibilities.

The ability of hospitals and physicians to set up joint financial arrangements—in particular to contract with managed care organizations—has affected the way some hospitals deal with doctors. One recent trend is for hospitals to acquire physician practices and try to integrate physicians into hospital management to some degree. In 1993, almost 14 percent of hospitals surveyed had a formal physician/hospital organization (PHO), 7 percent had a management services organization (MSO), and 4 percent had a foundation that negotiated managed care contracts on behalf of the hospital and

Table 1-10. Hospitals with Health Maintenance Organization and Preferred Provider Organization Contracts, by Hospital Category, Selected Years (In Percent)

Hospital Category	HMO			PPO			HMO and/or PPO		
	1985	1990	1992	1985	1990	1992	1985	1990	1992
All hospitals	30.6%	43.6%	47.1%	23.1%	48.3%	55.1%	37.2%	57.0%	61.8%
Community	33.1	48.1	51.9	25.3	52.9	60.4	40.4	62.5	67.9
Urban	52.9	70.8	73.8	39.7	70.3	76.1	61.5	81.3	83.8
Rural	30.6	43.6	47.1	23.1	48.3	55.1	37.2	57.0	61.8
New England	54.7	70.3	71.0	18.2	46.4	56.6	56.7	71.6	72.9
Middle Atlantic	37.3	56.9	64.8	9.3	37.2	48.9	40.5	64.8	72.0
South Atlantic	30.6	42.0	45.6	25.2	56.7	65.4	35.5	60.1	67.7
East North Central	48.8	67.9	69.2	37.2	72.0	76.8	57.0	82.2	84.2
East South Central	14.3	30.0	37.6	27.1	56.9	63.8	32.2	60.1	67.0
West North Central	25.4	37.3	37.4	13.1	34.2	44.2	28.7	45.9	52.8
West South Central	16.5	30.5	35.3	14.8	44.9	54.0	22.6	48.5	56.0
Mountain	25.7	39.9	44.6	27.7	45.4	49.8	34.4	48.5	53.5
Pacific	50.2	66.9	71.0	52.2	74.7	76.8	62.7	81.9	83.2
Voluntary	40.0	57.3	59.9	28.3	56.9	64.3	47.2	69.0	73.7
Proprietary	34.1	46.2	57.8	33.5	62.9	70.7	44.4	67.5	73.7
Government	17.3	28.0	30.4	15.1	39.0	46.7	23.7	45.4	51.5

Note: HMO = health maintenance organization. PPO = preferred provider organization. Trends in responses may reflect, in part, hospitals' increasing familiarity with HMO and PPO contracting over time; this may have increased the likelihood of positive survey responses.

SOURCE: American Hospital Association Annual Survey of Hospitals.

physicians as a unit (see Table 1-12).¹³ Such practice arrangements are less popular in the West Central region than in other parts of the country, and are more common in urban and teaching hospitals. These arrangements, however, are not unheard of in rural hospitals, where 14 percent of hospitals surveyed reported having some type of joint venture with physicians.

HOSPITALS IN THE FUTURE

The health care reform debate now under way focuses on the need for and types of reforms necessary to stem runaway health spending and provide universal health insurance coverage. The uncertain outcome of this debate could have a dramatic effect on the hospital of the future. Already, hospitals have responded in a variety of ways to the pressures they face, diversifying the services they offer, pursuing different avenues to control costs, and adopting new strategies that govern their relationships with other providers and physicians. Existing pressures to reduce spending and adapt to changing medical practices will continue. Federal, state, and local governments will further their efforts to bring health care expenditures under control and extend services

to vulnerable populations. Private payers will exert similar pressures. Medical practice will advance, adding new treatments and expanding the populations that could benefit from medical services.

The anticipation of health care reform and its ultimate nature, though, will further affect hospitals and their role in health care delivery. Comprehensive reform that alters the structure of financing and delivery systems to control expenditure growth and expand coverage would bring the most dramatic changes. Incremental reforms that modify the existing relationships among payers and providers would likely continue the adaptations hospitals are making now. Regardless of the shape of reform, the critical features that will affect hospitals relate to the type, strength, and source of pressure to control spending.

Health care expenditure control can be achieved through slowing the growth in costs per unit of service, reducing the number and intensity of services provided, managing the mix of services, or all three. Hospitals will be affected differently, depending on which strategy is followed and the strength of the pressure to respond. Likewise, the

Table 1-11. Hospital Net Patient Care Revenues from Health Maintenance Organizations and Preferred Provider Organizations, by Hospital Category, 1993 (In Percent)

Hospital Category*	Number of Hospitals	Net Patient Care Revenues from HMOs and PPOs (In Percent)			
		0-10	11-25	26-50	Over 50
Total	1,495	64.1%	24.5%	7.8%	0.9%
Atlantic	400	65.5	25.5	6.0	2.0
East Central	391	60.6	30.2	7.2	--
West Central	404	75.4	14.9	5.9	1.0
Far West	300	51.7	29.0	13.3	2.3
Urban	736	43.6	37.8	14.1	1.5
Rural	759	84.1	11.7	1.6	0.3
Teaching	233	59.7	33.0	3.9	0.9
Non-teaching	1,262	65.0	22.7	8.5	0.9

Note: HMO = health maintenance organization. PPO = preferred provider organization. Rows may not add to 100 due to survey item non-response.

* Atlantic includes the New England, Middle Atlantic, and South Atlantic Census divisions. East Central includes the East North Central and East South Central Census divisions. West Central includes the West North Central and West South Central Census divisions. Far West includes the Mountain and Pacific Census divisions. Teaching hospitals are those with more than 5 percent professional time spent teaching.

SOURCE: Survey of Hospital-Physician Relations conducted by MACRO International Inc., under contract to ProPAC.

source of the pressure to control expenditures will affect hospital responses. The impact of the efforts of individual payers—either in the government or private sector—would be quite different from a government mandate for expenditure control applied to all payers. Similarly, whether hospitals are singled out or all health care facilities are subject to controls will affect the response.

Rate-setting approaches to expenditure control involve imposing a payment per unit of service. These rates could be used by all or some payers and could be applied to a range of services and providers. Rate setting would force institutions to gain control over the cost of producing individual services by improving production efficiency. If rates were imposed only for some services or provider types, or only by some payers, shifts among types of services and across settings would continue as a way to avoid cost-containment pressure. Hospitals may also respond to these efforts by focusing on providing those services that are relatively better paid. This could put some services or populations at risk.

A system of global budgets or insurance premium caps could accelerate the movement of hospitals to gain control over the continuum of care. Global budgets are expenditure limits or targets

that could be applied to types of providers or services. Premium caps are similar limits that would be enforced by insurers. Hospitals may respond by forming health care networks to control expenditures for an episode of care. Alternatively, hospitals may concentrate on providing a narrow range of services efficiently and marketing these to established networks or payers. Hospitals that fail to coordinate their services with those offered by other providers would be the most vulnerable under this scenario. Unless quality of care is carefully considered, however, needed services could be eliminated in order to stay within the limits.

Under any type of reform, less stringent cost-control efforts would not be as disruptive to health care delivery patterns. Besides having a greater impact on spending growth, intense expenditure control efforts would likely alter institutional arrangements and service delivery patterns.

The sources of pressure to control expenditures may also affect the outcome of reform initiatives, as demonstrated by the responses to the implementation of PPS. Cost shifting from less generous payers (including most public ones) to more generous (largely private) payers has had two major results. First, the gains from private-pay patients have enabled the hospital sector to allevi-

Table 1-12. Hospital-Physician Organizations, by Hospital Category, 1993 (In Percent)

Hospital Category*	Number of Hospitals	Organization (In Percent)				
		Any Joint Venture	PHO	MSO	Foundation	IHO
Total	1,495	30.2%	13.6%	6.9%	4.1%	2.7%
Atlantic	400	33.3	18.3	6.5	5.3	2.3
East Central	391	34.8	13.8	7.2	4.6	2.8
West Central	404	24.3	10.3	5.1	2.4	2.0
Far West	300	32.7	11.3	9.3	4.3	4.3
Urban	736	47.0	21.5	10.7	6.4	4.6
Rural	759	14.0	5.9	3.2	2.0	0.9
Teaching	233	41.2	18.5	6.9	7.7	6.0
Non-teaching	1,262	28.2	12.6	6.8	3.5	2.1

Note: PHO = physician/hospital organization. MSO = management services organization. IHO = integrated health organization.

* Atlantic includes the New England, Middle Atlantic, and South Atlantic Census divisions. East Central includes the East North Central and East South Central Census divisions. West Central includes the West North Central and West South Central Census divisions. Far West includes the Mountain and Pacific Census divisions. Teaching hospitals are those with more than 5 percent professional time spent teaching.

SOURCE: Survey of Hospital-Physician Relations conducted by MACRO International Inc., under contract to ProPAC.

ate the pressure to control costs that public programs have attempted to create. Second, the ability to cost shift has, for many patients, maintained access to services they otherwise might not have received.

Cost-containment pressure in any form that is applied by some payers but not by others would exacerbate the current disparity in relative payment levels across payers. This would put certain hospitals at a financial disadvantage because of their inability to compete for patients with more generous private insurance coverage. Increasingly, a hospital's financial condition would be determined by its payer mix rather than its efficiency. If the gap in relative payment levels is widened because of different cost-containment measures across payers, many hospitals that provide important services to specific segments of the population may curtail their operations.

Within this climate of health reform to control expenditures and expand coverage, medical technology continues to evolve. New threats to the public's health (such as acquired immune deficiency syndrome) and medical advances in areas like biotechnology and diagnostic imaging will lead to the ongoing development of expensive new drugs, equipment, and procedures. Better understanding of disease processes and medical techniques for

combating illness will continue. This will add to the momentum to modify the mix of services and site of delivery. Such changes may enhance the hospital's role, if it has control over the continuum of service delivery. To the extent that these changes allow more providers to compete with the hospital or substitute for some of its functions, its role could diminish.

It is unclear how health care reform will affect the development and diffusion of new technology and the application of medical advances. Cost control may concentrate on innovations that reduce the cost of care. Reform that incorporates rate setting would be more likely to promote innovations that lower the cost of providing services. Global budget or premium cap reform approaches would focus attention on technologies or procedures that diminish costs over an episode of care. Under any reform scenario, public and private payers will continue their efforts to curb spending associated with new or diffusing technologies and the expanded ability to provide services.

The hospital's traditional role as the center of the health care delivery system has changed dramatically and is continuing to evolve. Hospital spending still makes up the largest part of total health expenditures, despite the increasing availability of services outside the inpatient setting and the proliferation of

ambulatory care providers. As a result, hospitals will bear much of the pressure to alter the way health care is delivered and paid for in the future. How much of this pressure falls on different hospitals will vary, depending on each hospital's current situation. How each hospital chooses to respond, and how well the hospital can implement its

response, will differ as well. What the future holds for each hospital therefore will be determined by a mix of internal and external forces. Facilities thus will be further differentiated in the services they provide and their relationships with other components of the health care financing and delivery system.

Notes to Chapter 1

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13. The survey conducted by MACRO International Inc., defined a PHO as a joint venture between a hospital and physicians to own and operate ambulatory or ancillary care projects or act as an agent for managed care contracts. A subcategory of a PHO, an MSO is a separate entity; is owned by physicians, the hospital or both; and contracts with solo and group practice physicians to provide administrative services, purchase physician practice assets, and act as the agent of the hospital and physicians in managed care contracts. A foundation is a corporation, usually a hospital affiliate or subsidiary, which acquires all assets of medical group practices. It negotiates and executes managed care contracts on behalf of both the hospital and physicians.

Chapter 2

Recommendations

Chapter 2

Recommendations

When the Prospective Payment Assessment Commission (ProPAC) was created by the Congress in 1983, its primary responsibility was to examine issues related to the Medicare prospective payment system (PPS) and make recommendations for updating and improving it. The Congress gradually has expanded ProPAC's mandate to include payment policies for all facility services furnished to Medicare beneficiaries. Accordingly, the Commission has conducted analyses of Medicare payments for skilled nursing facility (SNF), home health agency, and end-stage renal disease (ESRD) dialysis facility services.

In addition, at the request of the Congress, the Commission has examined the adequacy of Medicaid hospital payment rates and the use of Medicare payment methods for other payers. It has also analyzed issues related to the design and implementation of a global budgeting system to restrain health care spending. ProPAC continues to devote substantial effort, however, to updating and improving payment for hospitals under PPS and for those hospitals and distinct-part units excluded from PPS.

Although this report is submitted to the Congress, the Secretary of Health and Human Services is required to consider ProPAC's recommendations and respond to them in the annual notice of PPS rulemaking published in the *Federal Register*. The Commission is always pleased to work with the Secretary to provide additional analysis and information on its recommendations.

ProPAC's recommendations reflect the collective judgment of the 17 Commissioners. By the nature of their subject, some recommendations are reviewed each year, such as the annual update factors. Others address new issues or modify previous recommendations. All incorporate recent research findings. For fiscal year 1995, the Commission's recommendations address broader issues related to Medicare and health care reform, in addition to the

recommendations that relate more specifically to Medicare facility payments.

RECOMMENDATIONS FOR FISCAL YEAR 1995

The Commission's recommendations center on three areas of concern:

- Medicare and health care reform,
- Payment updates, and
- Other payment policies.

ProPAC's recommendations are intended to improve the equity and effectiveness of Medicare's payments for health care services. In this report, the Commission has considered certain aspects of health care reform that may affect the Medicare program. The recommendations that address payment updates reflect the Commission's view on aggregate spending levels. Finally, other recommendations concern the distribution of Medicare payments or the equity of Medicare's payment formulas.

Medicare and Health Care Reform

The health care industry is facing major challenges this year as legislators and policy makers struggle to control health expenditures and expand coverage to people without insurance. Several legislative proposals have been introduced to reform the health care system. Some of these focus on incremental changes that would affect the financing and delivery of health care. Others call for fundamental restructuring of the existing systems. Most include provisions affecting the Medicare program.

The Health Security Act introduced by the President would fundamentally change the financing and delivery of health care. Under this proposal, most people under 65 would obtain health

insurance coverage through regional or corporate alliances. These alliances would negotiate with health plans to provide medical services. The health plans would compete for patients on the basis of quality and costs. This managed competition among plans is expected to control the growth in health expenditures. As a contingency, however, premium rate increases would be limited if expenditure growth were not contained.

Medicare would be retained as a separate program under the President's proposal, although it would be subject to a number of cost-saving measures. Reductions in hospital payment updates are proposed. The disproportionate share (DSH) adjustment would be substantially reduced; however, universal coverage may ameliorate many of the problems this adjustment is intended to address. Medicare's indirect medical education (IME) adjustment would be replaced by an Academic Health Center Account to which Medicare and the alliances would contribute. Medicare's direct medical education payments for the cost of training medical residents would also be replaced by a special account funded by all payers. Although the Act incorporates mechanisms to ensure the quality of health care provided to those enrolled through the alliances, the oversight provided by Medicare's Peer Review Organizations (PROs) would be discontinued.

The Commission believes health care reform would have a major impact on both providers and beneficiaries. The first eight recommendations for fiscal year 1995 reflect the Commission's concerns regarding the effect of health care reform on the Medicare program, providers, and beneficiaries.

Recommendation 1: Medicare, Medicaid, and Private Payer Payment and Coverage of the Uninsured

Health care reform will have a major effect on the Medicare and Medicaid programs and the care beneficiaries receive. The Commission believes substantial changes in program policies should be considered only with a health care reform plan that covers the uninsured and pays comparable rates for similar services. As Medicare and Medicaid have constrained payments, providers have obtained additional revenue from

private payers rather than by reducing their costs. This increasing reliance on cost shifting concerns ProPAC because it is likely to have a negative effect on access to care for beneficiaries of government programs. Further, possible adverse effects on beneficiaries of slower growth in payments for hospital and other currently covered services must be carefully balanced against desirable effects of increased Medicare spending for new benefits proposed in the Health Security Act.

The Health Security Act proposed by the President contains a number of complex features that interact and could have a major effect on the services Medicare and Medicaid beneficiaries receive. The Act would slow the growth in Medicare and Medicaid spending for currently covered services, create a new prescription drug benefit, and add coverage for long-term care services for the disabled. It would also use premium limits to curb the rise in private payer spending and extend coverage to the uninsured.

Medicare and, more recently, Medicaid have been important sources of additional revenues for hospitals that treat a disproportionate share of the poor. Substantial reductions in payment levels, such as those proposed in the Health Security Act, could adversely affect access to care for beneficiaries in both programs. Such reductions should be considered only insofar as health reform provides coverage for the uninsured.

Medicare and Medicaid beneficiary access to quality care also depends on whether providers receive appropriate payments from both government programs and private payers. Proposals that would further restrain spending by public payers but that fail to narrow the gap in payment to cost ratios between public and private payers or to provide coverage for the uninsured could make it more difficult for the beneficiaries of public programs and the uninsured to obtain access to necessary care.

As both Medicare and Medicaid have constrained payments in recent years, hospitals have turned to private payers for additional revenue to offset losses, rather than reducing the increase in their expenses. Cost shifting has allowed the

Medicare program to curb spending, while permitting beneficiaries to receive services at costs that exceeded payments. It has also enabled many hospitals to maintain their financial position. The ability of hospitals to cost shift, however, has reduced their financial incentive to control expenses and increased the costs for subscribers of private insurance plans. The reliance on cost shifting as a revenue source has also disadvantaged hospitals that provide services to a large share of Medicare and Medicaid beneficiaries and charity care patients. Further, cost shifting has disadvantaged hospitals where private payers successfully control hospital revenues. Consequently, hospital financial condition and the availability of services increasingly are determined by payer mix rather than by efficiency.

A health care reform plan like the Health Security Act, which would constrain the growth in private payer as well as government spending, could also affect the care received by Medicare beneficiaries. Since hospitals would not be able to obtain additional revenue from private payers, they would have to limit expenses to a level consistent with revenues. The slower rise in payments for current Medicare services, however, would be accompanied by increased spending for a new prescription drug benefit and coverage of certain long-term care services. As the reform debate continues, balancing the effects of a slowdown in spending for hospital and other covered services with an increase in expenditures for new benefits is necessary to avoid untoward effects on Medicare beneficiaries.

Recommendation 2: Payments to Hospitals Serving a Large Share of Low-Income Patients

The Health Security Act would substantially reduce Medicare disproportionate share payments, as universal coverage ameliorates many of the problems these payments are intended to address. The Commission believes the timing of any such reduction in Medicare payments should be coordinated with the extension of universal coverage, so that hospitals that provide care to low-income populations are not disadvantaged. As a result, payments would be targeted more effectively to the hospitals that provide care to these populations. Even so, the payments received by different hospitals and the balance between payment levels for

Medicare and other patients may be affected significantly. These changes should be structured to ensure that both the level and distribution of payments are appropriate. ProPAC intends to work with the Congress and the Secretary of Health and Human Services to monitor and study this issue.

The Medicare DSH adjustment was implemented in 1986 to provide additional payments to PPS hospitals that treat a large share of indigent patients. Since then, the amount of DSH payments has grown rapidly, as Congress has increased the number of eligible hospitals and raised the adjustment for many. From fiscal year 1989 to fiscal year 1993, Medicare operating DSH payments grew from \$1.1 billion (2.4 percent of all PPS payments) to \$2.7 billion (4.1 percent of PPS payments). In addition, beginning in fiscal year 1992, hospitals receive a DSH adjustment to their prospective capital payment amount.

Analyses by the Congressional Budget Office, ProPAC, and others have shown that Medicare DSH payments far exceed any additional costs that might be associated with treating Medicare patients in disproportionate share hospitals. As a result, in the eighth year of PPS, the PPS margin for all disproportionate share hospitals was 1.6 percent, compared with -7.2 percent for other hospitals.

The bulk of Medicare DSH payments goes to hospitals that provide a large amount of uncompensated care and other services to the poor. This is often cited as a justification for the magnitude of the payments made under the Medicare DSH provision and the rules that govern how these payments are distributed. Disproportionate share hospitals—particularly those in inner cities—tend to have lower total margins than other hospitals. The Commission is concerned about whether, without Medicare DSH payments, Medicare beneficiaries and other populations would continue to have access to the services these hospitals provide.

However, ProPAC also is concerned about the ability to target Medicare DSH payments effectively to the hospitals that need them most. Of all PPS hospitals, the 10 percent with the greatest uncompensated care losses relative to their total costs provided 28 percent of all uncompensated care (net of government subsidies); these hospitals received

only 17 percent of all Medicare DSH payments. At the other end of the spectrum, the 10 percent of PPS hospitals with the smallest uncompensated care burdens provided almost no net uncompensated care, yet received almost 9 percent of all Medicare DSH payments.

The Health Security Act eventually would eliminate almost all Medicare DSH payments, lowering Medicare hospital payments by an estimated \$430 million in fiscal year 1996. Medicare DSH payments would be \$4.8 billion lower than currently projected by fiscal year 2000, amounting to a 3.5 percent reduction in baseline Medicare payments. On the other hand, people who are now uninsured and those who are underinsured would begin to receive coverage. Consequently, hospitals now uncompensated for providing care to these patients would be paid for these services.

Hospitals that serve low-income populations would still face some risk of financial losses, particularly in treating some noncitizens and other individuals who may be unable to meet their financial obligations to providers. To recognize the additional costs of treating low-income patients and to help hospitals furnish inpatient services to poor populations not covered by the standard benefit package, \$800 million would be available in each of the first five years following passage of the Act. These funds would be distributed based on the share of total inpatient days accounted for by low-income patients at each eligible hospital.

As with many provisions of the Health Security Act, the impact of the reduction in Medicare DSH payments and the extent to which it is offset by universal coverage is difficult to estimate. In addition to the level of total hospital payments, the distribution of payments also may change significantly. The Commission is concerned by the magnitude of these changes and their potential effects on the availability of necessary services to Medicare beneficiaries and all Americans. In addition, if the timing of the reduction in DSH payments is not coordinated with the extension of universal coverage, hospitals that provide care to low-income populations may be adversely affected.

Preliminary analysis indicates that the financial status of hospitals in the aggregate will depend largely on their ability to hold cost increases below

historical rates. ProPAC will continue to examine the implications of health care reform for the distribution of payments. In addition, the technical appropriateness of the proposed changes in the rules that determine Medicare DSH payments will be investigated as part of the Commission's ongoing mandate to analyze, develop, and recommend improvements in Medicare payment for facility-based services.

Recommendation 3: Payments for Additional Patient Care Costs Incurred by Teaching Hospitals

ProPAC supports the explicit recognition by all payers of the higher patient care costs teaching institutions incur. The Commission believes such payments should be separated from patient care rates and paid through a fund similar to the Academic Health Center Account proposed in the Health Security Act. ProPAC is concerned, however, that a sharp reduction in the payments teaching hospitals receive from government payers may result in financial hardships for some of the nation's major hospitals. Constraints on payments from private payers may exacerbate this problem. Therefore, ProPAC recommends that the total level of funding and the formula for distributing payments through such a mechanism should be based on careful analysis of the costs teaching institutions incur in carrying out their functions and how these payments will affect graduate medical education and access to the care these facilities provide.

The Health Security Act proposes an Academic Health Center Account to support the patient care costs incurred routinely by teaching facilities but not by other institutions. Among these are the costs of reduced faculty productivity, uncompensated costs of clinical research, and higher costs associated with specialized treatment of exceptional cases. Contributions from Medicare and from the regional and corporate alliances would fund the account. The available funds would be distributed by the Secretary of Health and Human Services on the basis of a formula related to the proposed Medicare IME adjustment percentage for fiscal year 1996. Thus, payments for the additional patient care costs

incurred by teaching hospitals would be separated from payments for patient care services.

Medicare's contributions to the Academic Health Center Account would be less than the IME payments made under the current formula, with estimated budget savings of \$17.8 billion over five years (1996 to 2000). This proposed reduction in Medicare payments reflects the Administration's estimate of the amount by which current IME payments exceed the additional patient care costs attributable to teaching activities.

Set at \$2.1 billion in fiscal year 1996 and \$2.0 billion in fiscal years 1997 and 1998, Medicare's contributions thereafter would rise at the same rate as the consumer price index (CPI) for all urban consumers. The total size of the Academic Health Center Account, including contributions from the regional and corporate alliances as well as Medicare, would be \$3.1 billion in fiscal year 1996, increasing to \$3.2 billion, \$3.2 billion, \$3.7 billion, and \$3.8 billion in the succeeding years.

Many private payers now pay higher rates to teaching hospitals for patient care services. However, in an environment of heightened price competition, teaching hospitals may not be able to obtain payments that reflect their higher patient care costs. Thus, they will likely be unable to fund these with revenue from patient care services.

The Commission supports the explicit recognition by all payers of the higher costs of treating patients in teaching institutions and the separation of payments for these costs from the basic price of care. However, ProPAC has three concerns about the Academic Health Center Account proposal in the Health Security Act. First, the amount to be distributed through the account should adequately reflect the additional costs teaching institutions face. Relatively little is known about the overall costs associated with the activities that the Academic Health Center Account is intended to support. Both ProPAC and the Health Care Financing Administration (HCFA) have analyzed the relationship between the intensity of hospital-based teaching activities and the cost of treating Medicare inpatients. However, the relationship between teaching intensity and the cost of treating other types of patients—that is, Medicare outpatients and non-Medicare inpatients and outpatients—in

hospitals and non-hospital settings is not known. Moreover, existing information may not be applicable in the environment of tight general funding constraints under health care reform. More analysis is needed to ensure that the account has sufficient funds to accomplish its purpose.

Second, the distribution of monies from the Academic Health Center Account should be equitable and encourage the efficient operation of teaching institutions. The proposed application of the Medicare IME adjustment to total patient care revenue may not be the most appropriate way to accomplish this objective. To allow for the proper distribution of available funds, further analysis should focus on what factors determine differences across institutions in terms of the costs these funds are intended to defray.

Finally, the Commission is concerned about how the funding of the academic health center mechanism might affect access to services these facilities provide for Medicare beneficiaries and others. The funds available through the Academic Health Center Account must adequately reflect the additional costs of the services they are intended to support. Substantial reductions in the level of Medicare IME payments should not be made until other components of health reform are fully implemented. (See Recommendation 19.) The impact of any changes in the level or distribution of payments among hospitals should be monitored carefully.

In addition, distributing Medicare IME payments through the academic health center mechanism rather than as an adjustment to the Medicare payment rate would mean that the payment received for each Medicare patient would be reduced relative to its current level (which includes the 7.7 percent IME payment adjustment). Medicare payments are a smaller proportion of costs than private payer payments. Although ProPAC's preliminary analysis indicates that the current gap between Medicare and non-Medicare payments relative to costs would narrow rather than widen under the proposed approach, this issue should be examined closely as health care reform is implemented.

Recommendation 4: Graduate Medical Education Funding and Payment

ProPAC supports efforts to establish a funding mechanism for graduate medical

education training programs that encompasses all payers, including Medicare. The Commission believes this mechanism should be separate from the payment received for patient care services. The level of funding and the distribution of payments should be determined according to the following principles:

- **Funding for graduate medical education should be consistent with national work force goals, with respect to both the number of residents trained and their specialty distribution.**
- **Funding should support training for physicians and certain non-physician medical personnel who contribute to attaining these goals.**
- **Payment should be made to the training program, whether it is based in a hospital inpatient, hospital outpatient, or other ambulatory setting. The optimal method for allocating and distributing such payments needs to be determined.**
- **Payment for graduate medical education should be based on a national per resident amount, adjusted to recognize regional differences in residents' salaries and other factors that, upon further study, are found to be appropriate.**

In addition, funds should be available to recognize the additional personnel costs of hospitals that operate programs that lose specialty training positions as a result of the process described above.

The Medicare program historically has paid hospitals for the costs associated with operating a residency training program. Costs for residents' salaries, faculty supervision, classroom space, program administration, and other related overhead were, until recently, recognized as a separate expense of which Medicare paid its share. Medicare is essentially the only payer that explicitly recognizes these expenses. Private insurers pay for these costs implicitly through the higher payments they make to teaching hospitals.

The Consolidated Omnibus Budget Reconciliation Act of 1985 changed Medicare's payment for these expenses to a hospital-specific per resident amount. This amount is equal to the hospital's audited per resident costs for the cost reporting period beginning during fiscal year 1984, updated annually by the increase in the CPI for all urban consumers.

Under the Health Security Act, there would be a fundamental change in financing for graduate medical education (GME). Both Medicare and the health care alliances (the entities responsible for coordinating the purchase of health insurance for the non-Medicare population) would contribute directly to a Health Professions Workforce Account. Initial funding for this account would be set at \$3.2 billion in fiscal year 1996, rising to \$5.8 billion in 1999 and 2000 and increasing at the same rate as the gross domestic product thereafter.

The Act would establish, within the Department of Health and Human Services, a new National Council on Graduate Medical Education. This council would determine the number and specialty distribution of residency positions to be funded. At least 55 percent of individuals completing eligible programs nationwide would be required to be in primary care, beginning with the class entering training in the 1998-1999 academic year. The primary care specialties to which the Act refers are family medicine, general internal medicine, general pediatrics, and obstetrics and gynecology.

Funds would be distributed to the individual residency programs, rather than to the hospital. Each program would receive a per resident payment amount based on the national average per resident cost in the 1992-1993 academic year, trended forward by the CPI and adjusted to reflect regional differences in residents' wages and wage-related costs.

The Act would also establish a program with respect to graduate nurse training that parallels the one for physician training, with funding set at \$200 million annually. The Secretary of Health and Human Services would be further required to establish or expand programs to train physicians, nurses, physician assistants, and other health professionals to improve the efficiency and availability of health care across geographic locations and settings.

ProPAC agrees that changes are needed in the way that graduate medical education and other health care training activities are structured and financed. While others have devoted substantial attention to issues related to the supply and distribution of health care personnel, the Commission's focus is on payment policies, particularly as they affect facility-based care provided to the Medicare population and other groups. Consistent with this focus, ProPAC has identified several principles that should be used in determining the level of funding and the distribution of payments to support the training of health care professionals. These principles should be used to guide policies relating to the funding of graduate medical education whether comprehensive health reform is enacted or not.

All-Payer Funding Mechanism—The Commission believes it is appropriate to include all payers in a mechanism for funding graduate medical education that sets a nationwide level for such funding. Moreover, this mechanism should be separate from the payment received for patient care services.

Currently, payers other than Medicare contribute only implicitly to the support of graduate medical education; Medicare's GME payment is based on each hospital's own historical costs. Consequently, there are unclear and inconsistent incentives related to the total number of residents and their distribution across geographic areas, programs, and institutions, as well as to costs per resident.

An all-payer funding mechanism for graduate medical education would base the level and distribution of payments on a consistent set of criteria. This would provide appropriate incentives for the allocation of resources. It would also ensure that the costs of training physicians would be borne by both the Medicare and the non-Medicare populations. Further, a funding mechanism that recognizes the costs of teaching activities regardless of setting would improve the effectiveness of medical education as well as the equity of payments.

Consistency with National Work Force Goals—Both the current Council on Graduate Medical Education (COGME) and the Physician Payment Review Commission (PPRC) have extensively examined physician supply and specialty distribution issues. Each of these groups has recommended limiting the number of residents

entering training to 110 percent of the number of graduates from U.S. medical schools. ProPAC supports limiting the number of resident positions.

COGME and PPRC differ, however, on how they would approach the issue of specialty distribution. COGME advocates increasing to 50 percent the proportion of primary care residents, which it defines as family practice, general internal medicine, and general pediatrics. PPRC does not recommend a specific percentage for primary care, but endorses the designation of a national body to determine the most appropriate specialty distribution of residents. ProPAC supports proposals that would lead to a more appropriate specialty mix of physicians, including those who serve the special needs of the Medicare population. These issues, however, need to be reexamined periodically, and an independent group should be created to monitor and set future work force goals. The Commission believes graduate medical education funding should be tied to these work force decisions.

Training for Other Categories of Health Care Professionals—National work force goals should include the appropriate use of both physicians and other categories of health care professionals. The determination of the appropriate roles for specific categories of medical personnel is beyond ProPAC's mandate, however. In any event, the availability and distribution of funding should be consistent with national work force goals.

Payments to Training Programs—Currently, Medicare pays the hospital for the direct costs of approved graduate medical education programs and direct medical education costs for the training of nurses and allied health personnel. This provides a strong incentive in support of hospital-based training and discourages the use of alternative sites, such as physician offices and other ambulatory settings. The Commission believes GME payments should be made to the training program, rather than to the hospital. This would allow greater flexibility concerning where and how the residents are trained and would simplify funding for residencies that are provided in several settings.

Although ProPAC favors payment to the program rather than to the hospital, questions arise about the appropriate designation of the entity that would actually receive the payment. These

questions need to be addressed before final determination is made concerning the method for allocating and distributing GME payments.

Per Resident Payment Amount—The Commission believes GME payments should be based on a national per resident payment amount, adjusted for appropriate differences in costs across institutions. The current Medicare per resident payment amounts, which are based on each hospital's own historical costs, vary substantially. Moreover, this variation in payments does not, as a rule, correspond to observed differences in current costs.

ProPAC has examined some of the reasons for the variation in per resident costs, and has found geographic location to be a significant factor. In addition, some hospital and program characteristics are correlated with per resident costs. However, the allocation of overhead also appears to be related to reported costs. Moreover, the results indicate that the PPS hospital wage index, which measures the cost of all hospital labor inputs, may not be an appropriate adjuster for residents' wage differences.

The Commission believes further work is necessary to identify appropriate adjustments to a national per resident payment amount. ProPAC will continue to examine this issue over the coming year.

Funding for Institutions That Lose Training Positions—Adequate funding should be available to assist hospitals that lose training positions as a result of the reduction in the total number of positions and the reallocation of these positions across hospitals and other settings. Some of these institutions rely on residents to provide basic patient care, and the loss of these positions could substantially increase their costs. Moreover, many of these facilities are located in areas where it is difficult to recruit other physicians, and many provide care to populations that otherwise might not have access to that care.

Recommendation 5: Quality of Care

The Commission believes there must be an effective quality assurance program for Medicare enrollees, especially given health reform's emphasis on cost control and proposed cutbacks in Medicare spending. The Peer Review Organization program should

be continued but thoroughly evaluated. It should be replaced only by a program that has been determined to be more effective.

The Health Security Act eliminates the PRO program and does not replace it with another quality assurance program for Medicare enrollees. The Commission views this as undesirable, especially given that cutbacks in the rate of growth in Medicare spending and cost controls in the private insurance market may adversely affect the quality of care provided to Medicare patients. ProPAC has stressed the importance of a regulatory quality assurance program for Medicare in past recommendations; it believes that both pattern analysis and individual case review should be continued.

The PRO program should not be eliminated until another way to assess quality proves to be superior. In addition, it should be evaluated to see what aspects are most effective in improving quality of care. The Health Care Financing Administration should consider implementing additional quality assurance programs and evaluating them simultaneously with the PRO program to determine the best way to ensure that Medicare beneficiaries receive quality care.

Dramatic changes in the PRO program have reduced the emphasis on punitive case review and incorporated pattern analysis with educational feedback. These changes are consistent with recommendations made by the Institute of Medicine and others. There are no plans, however, to evaluate this new methodology.

The proposed quality assurance program in the Health Security Act depends largely on collecting and disseminating information to purchasers, consumers, and providers on quality of care, access to care, and patient satisfaction. This method of quality assurance is largely untested. Further, under the Act it would not apply to most Medicare enrollees. The Commission recommends that any quality assurance methodology enacted as part of health reform should be evaluated. In addition, the methodology should be appropriate for a Medicare-enrolled population.

Recommendation 6: Improvements in Premium Risk Adjustment Methods

The Commission recommends that the Secretary undertake the research necessary to

substantially improve current risk adjustment methods. Risk adjustment will be needed under many health reform proposals to ensure that the premiums paid to competing health plans accurately reflect the risk composition of their enrollees. Until major improvements can be made, some other mechanism may be needed to limit the potential impact of enrolling individuals whose care proves to be exceptionally costly.

Under many health reform proposals, including the President's plan, most individuals would obtain their health coverage from a health plan that participates in a local purchasing alliance. Under some proposals, persons eligible for Medicaid, along with Medicare enrollees who choose to obtain coverage through the risk program, also would receive coverage and health services from a health plan that competes in the local alliance. Therefore, the ability to establish equitable premium payments among competing plans will be important for Medicare and Medicaid enrollees, as well as for all other citizens.

The Commission believes payment equity among competing health plans will be critical to preserving the long-term viability of competition within each purchasing alliance. In addition, equitable payment is necessary to promote and maintain equal access to health services among different population groups, including Medicare and Medicaid beneficiaries.

Accurate adjustment of plan premiums to reflect the risk composition of plan enrollment is essential to achieve payment equity among competing health plans. Fair risk adjustment methods are important for two reasons. First, risk adjustment would ensure that all plans are able to provide a comparable quantity and mix of health services to enrollees with comparable needs. In the absence of effective risk adjustment, plans that enroll high-risk persons would be forced to limit access to needed services or take a financial loss. Moreover, such plans would be unable to offer competitive premium rates over the long run. Conversely, plans that enroll low-risk persons would be able to provide a richer mix of services or make windfall financial gains. Consequently, these plans would be able to offer favorable premium rates, thereby securing a competitive advantage. Second, without effective risk adjustment, competing health plans would have a

strong incentive to try to attract a favorable selection of enrollees while avoiding high-risk persons. This could lead to unequal access to care.

Current methods of risk adjustment appear to have serious deficiencies. Risk adjustment involves using information about individuals' demographic characteristics, health status, or recent use of health services to predict future expenditures for health care. Research suggests that even the best combination of available risk indicators accounts for only a small proportion of the variability in subsequent expenditures among individuals. Therefore, substantial improvements in these methods and the data to support them are urgently needed.

Until improved risk adjustment methods can be developed, the financial risks and undesirable incentives associated with unfavorable selection could be limited in other ways. This goal could be accomplished by compensating plans for a portion of any large losses they experience in providing care to enrollees with extraordinary medical expenses. This could be done using the traditional reinsurance mechanisms of the private insurance industry. In this case, health plans could choose to purchase insurance against the occurrence of an adverse claims experience that results in spending that is much higher than expected. Such insurance would relieve some of the undesirable consequences of ineffective risk adjustment.

Alternatively, plans' financial risks could be reduced by a mandatory outlier policy analogous to the outlier payment policy under PPS. Under this policy, all plans' premium revenues would be taxed to provide an outlier payment fund. This fund would be used to make additional payments to any plan that experiences large losses in providing care to individual enrollees with extraordinary expenses. Such payments would cover a high proportion of the loss in excess of a fixed loss threshold. Consequently, this mechanism also would limit plans' losses to the extent that they were attributable to unfavorable selection. Therefore, it also would mitigate the unwanted effects of inadequate risk adjustment.

Recommendation 7: Controlling Medicare Spending Across All Sites of Care

Medicare should continue to develop policies to monitor and control total expenditure

growth across all sites of care. Payment methods should not unduly favor the choice of one site over another. They should also provide consistent incentives to constrain increases in volume and service intensity across physicians and other providers.

The Commission endorses the development of prospective payment methods for all services across all sites. These methods should be designed to offer uniform incentives for efficiency as well as make payments across sites more comparable. This is particularly important because many services are available in alternative settings. Prospective methods alone, however, will not address one of the major reasons for expenditure growth: increased volume and intensity of services. Medicare's physician payment method incorporates such incentives through its volume performance standards by adjusting fees to reflect the relationship between actual expenditures and an expenditure target. Other providers are not subject to such direct volume control measures.

Premium caps in the President's proposal provide incentives for health plans to constrain price and service volume across all settings for non-Medicare enrollees. The modifications to Medicare policies included in the Health Security Act do not incorporate similar incentives. While the Medicare provisions of the President's plan generally would reduce the growth in per service payments, spending increases likely would persist due to accelerating volume. The Medicare program, therefore, should continue to develop volume control methods for all sites of care.

The contribution of expanding utilization to expenditure growth is well-illustrated by Medicare's home health program. Home health agency charges per visit increased only 4.7 percent annually between 1988 and 1991, yet Medicare expenditures increased at an average annual rate of 10.8 percent. As another example, the Medicare payment rate for dialysis services has not risen since 1985, yet expenditures increased at an annual rate of 12.4 percent through 1990.

Several strategies for constraining volume have been identified. One approach is to combine, or bundle, separately billable services into a single payment unit. A volume performance standard like

the one implemented for physician payment is another method. Finally, managed care arrangements have the potential to control utilization and encourage care in the most appropriate setting. From a policy standpoint, each of these methods provides certain advantages and disadvantages. Each also presents different implementation issues. The Medicare program should develop the most appropriate ways to achieve volume and price control across all services and sites of care. The approaches selected should create consistent incentives for all providers in all settings.

Medicare benefit and payment policies are fragmented and at times inconsistent across sites and providers. Improvements in these policies are needed to ensure stable incentives to slow the growth in spending. These changes should reward efficient resource use while improving the continuum of care for Medicare beneficiaries.

Recommendation 8: Strengthening Medicare's Risk Contracting Program

The Commission recommends that the Secretary improve Medicare's risk-based, managed care program to give more Medicare beneficiaries the option of enrolling in managed care plans. To increase plan participation, deficiencies related to the risk adjustment formula and local differences in payments need to be corrected.

Medicare's risk-based, managed care program has been shown to improve access and, in some cases, to provide a broader array of services to Medicare beneficiaries. The program also may have the potential to be cost effective for Medicare, particularly if evaluated over several years. Furthermore, increased emphasis on risk-based, managed care is consistent with the President's health care reform proposal. Despite these advantages and the growth of managed care in the private sector, only 5 percent of all Medicare enrollees participate in Medicare's managed care program. One reason for the low participation may be the limited availability of managed care options. Health plans have been reluctant to participate in Medicare's risk-based program because of concerns related to Medicare's payment method. The Commission recommends that HCFA step up its efforts to improve the methods for determining payments to risk-based,

managed care plans, thereby making this option more available to Medicare beneficiaries.

Participating plans are paid a capitated amount based on 95 percent of each county's average Medicare fee-for-service expenditures. However, Medicare managed care enrollees' utilization and related expenditure patterns differ from those with fee-for-service coverage. Managed care enrollees use fewer hospital days and more ambulatory care. The dissimilarities between the two populations in service use and related spending may not be captured in the current payment method.

Further, payments based on county-level fee-for-service expenditures are even less representative of the average spending in areas where managed care enrollment is high. Medicare's policies, therefore, may penalize managed care plans in counties where they have already helped to slow the growth in fee-for-service spending.

The risk-based, managed care program also has been criticized for failing to make adequate risk adjustments in plan payment amounts. Medicare uses a limited number of demographic variables to adjust payments for enrollee characteristics (age, sex, Medicaid status, and institutional status), but these measures are poor predictors of actual expenditures. Better measures are being investigated that incorporate utilization data for hospital and ambulatory care, prescription drug use, and other factors directly related to health care use and spending.

HCFA is reviewing ways to improve the payment methods for Medicare's risk-based, managed care contracts. The Commission recommends that HCFA continue these efforts to strengthen this component of the Medicare program. Providing more equitable payments could encourage greater plan participation, thereby giving more beneficiaries the option of enrolling in managed care. Further, evaluations of spending under Medicare managed care should be based on longitudinal comparisons of beneficiary experience. Medicare's managed care option could become even more important under many of the health care reform proposals.

Payment Updates

The Commission is mandated by law to report to the Congress each year on an appropriate update to

the inpatient hospital payment rates under PPS. ProPAC considers several factors in developing its annual update recommendation: the hospital market basket index (which reflects the prices of resources used by hospitals in providing inpatient care), scientific and technological advances, hospital productivity, case-mix change, and the quality and long-term cost-effectiveness of health care. The Secretary of Health and Human Services is required to consider the Commission's recommendation in developing her update recommendation. The actual update historically has been legislated by the Congress in the budget reconciliation process.

In the Omnibus Budget Reconciliation Act (OBRA) of 1993, the PPS operating update was established for each fiscal year through 1997. For fiscal year 1995, the update for hospitals in large urban areas (areas with populations over one million) and other urban areas is set equal to the change in the hospital market basket index minus 2.5 percentage points. The update for rural hospitals is the amount necessary to bring the rural standardized amount to the same level as the other urban standardized amount. Even though the fiscal year 1995 update has been set by law, the Commission has continued its traditional approach of examining the individual factors that together determine the appropriate update to the PPS payment rates. ProPAC believes this approach results in a payment increase that is sufficient, in the context of the current health care financing system, to maintain Medicare beneficiaries' access to quality care while encouraging hospital efficiency in providing that care.

In addition to the update to the PPS payment rates, the Commission recommends an update for the Federal capital payment rate. ProPAC also recommends an update for rates derived from hospital base-year costs, which may be used in place of the PPS rates for sole community hospitals. Finally, the Commission considers the update for facilities currently excluded from PPS. ProPAC's recommendation for an update to the composite payment rate for dialysis services is also presented.

Recommendation 9: Update Factor for Operating Payments to PPS Hospitals

For fiscal year 1995, the PPS standardized payment amounts should be updated to account for the following:

- The projected increase in the HCFA PPS market basket index, currently estimated at 3.7 percent;
- An adjustment of zero percentage points for the difference between the projected ProPAC and HCFA market baskets;
- A negative adjustment of 1.1 percentage points for substantial error in the fiscal year 1993 market basket forecast;
- A positive adjustment of 0.3 percentage points to reflect the cost-increasing effects of scientific and technological advances;
- A negative adjustment of 0.7 percentage points to encourage hospital productivity improvements; and
- A net adjustment of zero percentage points for case-mix change.

In addition, a positive adjustment of 3.1 percentage points should be made for hospitals in rural areas to complete the phase-out of the differential in standardized amounts between rural and other urban hospitals. ProPAC's recommendation would result in an estimated average update factor of 2.7 percent for fiscal year 1995: an increase of 2.2 percent for urban hospitals and of 5.3 percent for rural hospitals.

This recommendation reflects the Commission's judgment about the appropriate increase in the level of PPS payment rates. Since it is based on current projections of the fiscal year 1995 increase in the market basket index, the effective value of ProPAC's update factor recommendation may be modified as more recent forecasts become available. The components of ProPAC's update factor recommendation are summarized in Table 2-1, and a discussion of each follows.

It should be noted that the increase in average per case payments in each year exceeds the PPS update. This is because increases in the Medicare case-mix index (CMI) result in proportionally higher hospital payments. Future changes in case mix are difficult to predict; however, on the basis of

currently available data, ProPAC estimates that the CMI will rise by 0.9 percent in fiscal year 1995. Based on the Commission's recommendation of a 2.7 percent average update, the average increase in per case payments would be about 3.6 percent.

PPS Market Basket Forecast and Forecast Error Correction—The forecasted increase in the market basket index is the expected change in the prices of the resources used during a typical hospital stay. This forecast is the reference point used in updating the PPS payment rates. The current forecast is for a 3.7 percent increase in HCFA's PPS market basket index during fiscal year 1995.

In its March 1990 *Report and Recommendations to the Secretary, U.S. Department of Health and Human Services*, ProPAC proposed modifications to the market basket used by HCFA. Although HCFA adopted most of these modifications, it did not incorporate the key provision that increased the weight of internal hospital wages in the computation of the market basket index. The Commission believes HCFA's market basket as currently constructed does not adequately recognize the unique characteristics of the hospital labor market.

Since the PPS update for fiscal year 1995 is legislated relative to HCFA's market basket, that market basket is used as the basis for ProPAC's update framework. The Commission takes this into account by making an adjustment to allow for the estimated effect of the modifications it has proposed. However, the current fiscal year 1995 forecast is that the increase in ProPAC's and HCFA's market baskets will be the same. The corresponding adjustment, therefore, is zero percentage points.

A forecasted market basket increase of 4.1 percent was used to set payments in fiscal year 1993. The actual market basket increase, however, was only 3.0 percent. The update for fiscal year 1993 thus was set 1.1 percentage points higher than if the actual market basket increase had been known at the time.

The Commission believes a correction for substantial error in market basket forecasts is an important part of its update framework. This correction protects both hospitals and the Federal government by adjusting the base payment rates so that the effects of past forecast errors (both positive and

Table 2-1. Recommended Update Factor for PPS Hospital Operating Payments, Fiscal Year 1995

Components of the Update

Components applied to all hospitals:

Fiscal year 1995 HCFA PPS market basket forecast ^a	3.7%
Adjustment for difference between HCFA and ProPAC market baskets ^a	0.0
Correction for fiscal year 1993 forecast error	-1.1
Allowance for scientific and technological advances	0.3
Adjustment for productivity	-0.7
Adjustments for case-mix change (fiscal year 1994)	
Total DRG case-mix index change	-0.9
Real across-DRG case-mix change	0.7
Within-DRG case-complexity change	0.2
Net adjustment for case-mix change	0.0

Additional adjustments to the standardized amounts:

Adjustment for large urban areas ^b	0.0
Adjustment for other urban areas ^c	0.0
Adjustment for rural areas	3.1

Total Update Factor

Overall average	2.7
Large urban areas	2.2
Other urban areas	2.2
Rural areas	5.3

^a Market basket forecast provided by the Health Care Financing Administration, Office of the Actuary, December 1993. The market basket forecast is subject to change as more current data become available.

^b Large urban areas = metropolitan areas with populations of one million or more.

^c Other urban areas = metropolitan areas with populations of less than one million.

negative) are removed. Therefore, ProPAC's update recommendation also includes a -1.1 percentage point adjustment for fiscal year 1993 market basket forecast error.

Adjustment for Scientific and Technological Advances—The allowance for scientific and technological advances is a future-oriented policy target. It provides additional funds for hospitals to adopt quality-enhancing health care advances, even when they increase costs. To develop an informed judgment about the appropriate level of this allowance, ProPAC annually examines emerging, cost-increasing technologies and scientific developments. (See Appendix A for more information on the technologies contributing to the increase.) The Commission believes 0.3 percent is an appropriate

level for the operating scientific and technological advances allowance for fiscal year 1995.

Adjustment for Productivity Improvement—The productivity adjustment is also a future-oriented policy target. The Commission believes it is reasonable to expect hospitals to achieve productivity improvements during fiscal year 1995 that are comparable to those achieved in other sectors of the economy. The recommended adjustment of -0.7 percentage points is based on ProPAC's determination that hospital productivity should increase by 1.4 percent and that the savings from such productivity improvement should be shared equally by hospitals and the Medicare program. The Commission thinks it is appropriate for the costs of scientific and technological advances to be financed in part

by expected productivity gains, to provide an incentive for hospitals to strive for productivity improvement as they adopt new technologies. (See Appendix A for more information on trends in hospital productivity.)

Adjustments for Case-Mix Change—The fiscal year 1995 PPS update should be adjusted to account for the net effect of case-mix change during fiscal year 1994. The net adjustment in this year's update is zero percentage points and reflects the following:

- A 0.9 percentage point reduction for the estimated change in the CMI,
- A positive allowance of 0.7 percentage points for real case-mix change across diagnosis-related groups (DRGs), and
- A positive allowance of 0.2 percentage points for within-DRG case-complexity change.

Adjusting for these factors allows payments to increase due to real changes in the resources required to treat an average Medicare patient. At the same time, it removes the effect of changes in medical record documentation and coding practices that are unrelated to patient resource requirements. (See Appendix A for a more detailed discussion of case-mix change.)

Differential Adjustments to the Standardized Amounts—ProPAC supports the provisions of OBRA 1990 and OBRA 1993 that eliminate the difference between the standardized payment amounts for rural and other urban areas in fiscal year 1995. This year's update would complete a process begun in 1991 that has provided higher updates in each year to rural hospitals. The Commission estimates that the differential would be eliminated if the rural update were 3.1 percentage points higher than the urban update for fiscal year 1995.

Since the beginning of PPS, the ratio of Medicare payments to costs has been higher for urban hospitals than for rural institutions. This is primarily the result of two factors. First, urban hospitals have benefited more from the PPS payment adjustments—particularly the effects of CMI change and the IME and DSH adjustments. In addition, rural

hospitals have had large declines in inpatient volume, raising fixed costs per case. However, as indicated in ProPAC's October 1991 report to the Congress, *Rural Hospitals Under Medicare's Prospective Payment System*, several recent policy changes have improved the relative performance of rural hospitals under PPS. This trend promises to continue. The Commission will monitor and analyze the further effects of these policies as additional data become available.

Recommendation 10: Update Factor for Capital Payments to PPS Hospitals

For fiscal year 1995, the Commission recommends that a formula-based approach be used to update capital payment rates. The capital update should include the following:

- **The projected increase in a capital market basket index that measures one-year changes in a fixed basket of capital goods hospitals purchase, currently estimated at 3.4 percent;**
- **An adjustment of zero percentage points to correct for past forecast errors;**
- **An adjustment of zero percentage points to reflect changes in financing costs;**
- **A positive adjustment of 0.9 percentage points for scientific and technological advances;**
- **A negative adjustment of 0.7 percentage points to encourage hospital productivity; and**
- **A net adjustment of zero percentage points for case-mix change.**

The Commission's recommendations would result in a 3.6 percent increase in the Federal capital payment rate for both urban and rural hospitals.

ProPAC believes the capital update should be for future capital purchases. It is designed to provide Medicare capital payments reflective of future capital replacement prices. It would provide updates

appropriate to maintain hospital capital stock adequate to provide efficient and effective care to Medicare beneficiaries.

The components of the update recommendation are summarized in Table 2-2; a discussion of each of these components follows. (See Appendix A for more information on the capital update.)

Capital Market Basket—ProPAC's capital update recommendation reflects projected increases in a market basket index designed to measure changes in the prices of capital assets hospitals purchase. This index, developed by the Commission, provides a measure of the increase in capital input prices analogous to that used to update PPS operating payments. (See Recommendation 9.) It also measures annual change in the price of a fixed mix of capital goods.

The recommended market basket includes three price components: building and fixed equipment, movable equipment, and other capital-related costs such as insurance. The market basket weights reflect hospitals' patterns of capital acquisition. In the absence of accurate and current information on actual capital purchases, the Commission believes that shares of depreciation expense, adjusted for other capital-related costs, are the best available measures of future purchases. Therefore these shares, combined with annual outlays for capital-related costs, are used as weights in the market basket.

Table 2-2. Recommended Update Factor for Capital Payments, Fiscal Year 1995

Components of the Update	
Fiscal year 1995 capital market basket ^a	3.4%
Correction for fiscal year 1993 forecast error	b
Financing policy adjustment	0.0
Allowance for scientific and technological advances	0.9
Adjustment for productivity improvement	-0.7
Adjustment for case-mix change ^c	0.0
Total capital update	3.6

^a Market basket estimate developed by ProPAC using forecasted data supplied by the Health Care Financing Administration, Office of the Actuary, January 1994. The market basket forecast is subject to change as more current data become available.

^b Not applicable.

^c Case-mix change components = total DRG CMI change, real across-DRG case-mix change, and within-DRG case-complexity change.

Although updates should apply to the full Medicare capital payment rate, which reflects historical levels of depreciation and interest, interest rate changes should be handled separately from the market basket. The Commission's financing policy adjustment addresses the issue of interest rate change in the update framework.

The capital market basket proposed by the Secretary uses a complex structure of weighted average changes in economywide price proxies and measures of interest expense. Its value is largely determined by historical values of its components. In ProPAC's view, a straightforward market basket that reflects the change in the price of hospital capital purchases and other capital-related costs in the coming fiscal year is more appropriate. The recommended market basket would provide Medicare capital payments reflective of future capital purchase prices.

ProPAC studied a range of alternative capital price measures. In its March 1993 *Report and Recommendations to the Congress*, the Commission recommended using two price proxies especially relevant to hospital industry capital purchases: for hospital building and fixed equipment capital costs, the Boeckh building cost index subindex for apartments and office buildings (institutional construction); and for movable equipment capital costs, the Marshall and Swift hospital equipment index. Changes in other capital-related costs would be measured by the consumer price index for residential rent. Components would be weighted as discussed above. The market basket would be used to prepare single-year projections of price change.

As of January 1994, the projected increase in ProPAC's market basket index for fiscal year 1995 is 3.4 percent. This forecast may change as more up-to-date data become available and methodologies for estimating the components of the market basket are refined.

Forecast Error Correction—The Commission believes the correction of past market basket index forecast errors should be part of the update framework. This correction protects both hospitals and the Federal government by adjusting the payment rates so that the effects of past forecast errors are not perpetuated. Because a capital market basket has not yet been used to increase capital payment rates, a correction factor is not needed this year.

Financing Policy Adjustment—The Commission's capital update framework includes a financing policy adjustment to account for the effects of changes in interest rates on hospital capital costs. In ProPAC's view, interest rate fluctuations should not be reflected in the market basket. If they were, such changes might lead to volatility in updates, overcompensation of hospitals in some circumstances, and undue risk for facilities at other times. Instead, ProPAC recommends an explicit adjustment to the capital update factor to account for significant changes in interest rates.

The financing policy adjustment reflects interest rate changes that might otherwise create a significant financial burden for hospitals, as well as those that would produce substantial reductions in capital costs. It would raise payments to compensate hospitals faced with disruptive effects of extreme interest rate increases and allow the Medicare program to share in some of the savings resulting from lower interest rates.

Though relatively high compared with short-term rates and in light of expected inflation, long-term interest rates are anticipated to remain stable through fiscal year 1995. The Commission believes it is not appropriate to adjust capital payments for forecasted changes in interest rates at this time.

Scientific and Technological Advances—ProPAC recognizes that future hospital capital investments may include more costly, quality-enhancing medical technology. The capital update framework adjusts payments to allow for scientific and technological advances. (See Recommendation 9.) The Commission recommends a 0.9 percentage point adjustment for the capital component of scientific and technological advances.

Productivity Improvement—ProPAC recognizes the need to adapt the capital stock of hospitals to a health care environment with less demand for inpatient services through its productivity adjustment. This adjustment serves as a target for improvement in productivity due to more efficient use of plant and equipment and purchase of cost-decreasing technologies. The Commission recommends an adjustment of -0.7 percentage points to encourage more efficient use of existing plant and equipment and the purchase of cost-decreasing technologies. (See Recommendation 9.)

Case-Mix Change—Medicare uses the same DRG definitions and relative weights for both operating payments and capital payments. As a result, capital payments respond to changes in the CMI in the same way as do PPS operating payments. Thus the adjustment to capital payment rates for CMI change is identical to that made to operating payment rates. (See Recommendation 9.) The net adjustment for case-mix change is zero percentage points.

Recommendation 11: Single Operating and Capital Update Factor

The Commission recommends that when the transition to fully prospective capital payments is complete, a single update factor be used for adjusting PPS operating and capital payment rates. Based on ProPAC's recommended updates to the operating and capital payment rates, the total increase to a fully prospective combined payment rate would be 2.8 percent for fiscal year 1995.

The Commission believes there ultimately should be one payment for hospital inpatient operating and capital expenses and a single annual update to that payment. ProPAC recognizes that a combined capital and operating update factor cannot be used until the transition to a fully prospective capital payment system is complete. This is because the update applies only to the prospective portion of capital payment rates. Further, the operating payment update is currently set by law, while the Secretary has authority to establish capital prospective payment updates through annual rule-making. The Medicare program, however, should move to a single update approach for inpatient operating and capital payment rates as soon as possible. Despite the separate payment methods, hospitals do not distinguish between their operating and capital payments. Operating payments may be used to defray capital shortfalls and vice versa. Separate update factors for operating and capital expenses do not reflect the way hospitals actually use their revenues or make investment decisions.

ProPAC therefore recommends the development and use of an update framework that includes capital and operating components for fiscal year 1995. Like the operating update used by ProPAC, the combined update approach should incorporate operating and capital market baskets to measure

changes in prices, as well as adjust for productivity, scientific and technological advances, and case-mix change. This would ensure that updates to both operating and capital base payment rates reflect increases in the costs of the goods and services that hospitals require to produce inpatient hospital care efficiently. Ultimately, operating and capital components should be included in a single market basket and set of adjustments.

A combined fully prospective update would yield an average payment rate increase of 2.8 percent under the Commission's recommendation. The total payment rate increase, however, would be about 3.7 percent, because of expected increases in the CMI (see Table 2-3).

Recommendation 12: Update Factor for Hospitals Paid on the Basis of Hospital-Specific Rates

The Commission believes payments based on hospital-specific base-year costs for sole community hospitals should be updated by the average update given to all hospitals.

This recommendation would result in an update to the hospital-specific rates of 2.7 percent for fiscal year 1995, consistent with the Commission's recommendation on the PPS update. Since the update is based on current projections of the fiscal year 1995 increase in the market basket index, its effective value may be modified as more recent forecasts become available.

OBRA 1989 provides that certain hospitals be paid on the basis of the PPS rate, their own 1982 base-year costs updated to the current year, or their updated 1987 base-year costs, whichever would yield the largest payment. Sole community hospitals,

which meet certain criteria based on distance from other hospitals or market share, qualify for this special treatment. Provisions affecting small rural Medicare-dependent hospitals, which were defined as rural hospitals with fewer than 50 beds and at least a 60 percent Medicare share of total discharges or inpatient days, expired with cost reporting periods ending on or after April 1, 1993. However, OBRA 1993 restored this provision for cost reporting periods ending before October 1, 1994. For fiscal year 1995, Medicare-dependent hospitals will no longer be paid on the basis of hospital-specific rates and will be treated like other rural hospitals.

Current law requires that the hospital-specific rates for these hospitals be updated at a rate equal to the expected average update for all PPS hospitals. ProPAC concurs with this provision. Sole community hospitals are accorded special treatment under PPS because they may face higher historical costs due to their special circumstances. Nevertheless, these hospitals should be able to control their cost increases as other hospitals do. Last year, the Commission recommended that the update for rural areas be applied to the hospital-specific rate, on the grounds that other rural hospitals are the appropriate comparison group for these hospitals. However, this year's PPS update for rural hospitals (including sole community hospitals) is substantially higher than the average for all hospitals. The Commission believes the average increase for all hospitals provides a reasonable update for the hospital-specific rates available to these facilities.

Recommendation 13: Update Factor for PPS-Excluded Hospitals and Distinct-Part Units

For fiscal year 1995, the target rates for PPS-excluded hospitals and distinct-part units should be updated by 2.7 percent. This recommendation accounts for the following:

- **The projected increase in the HCFA PPS-excluded hospital market basket, currently estimated at 3.7 percent;**
- **An adjustment of zero percentage points for the difference between the projected ProPAC and HCFA market baskets;**

Table 2-3. Estimated Fiscal Year 1995 Average Increase in Per Case Payments Under Fully Prospective Rates

Operating update factor	2.7%
Capital update factor	3.6
Total average update	2.8
Estimated case-mix index change (fiscal year 1995) . .	0.9
Total average increase in PPS payments*	3.7

* The total average increase in PPS payments reflects the multiplicative effects of the total average update and case-mix index change.

- A negative adjustment of 1.0 percentage points for substantial error in the fiscal year 1993 market basket forecast; and
- An adjustment of zero percentage points for scientific and technological advances.

When PPS was established, it was clear that prospective payment based on DRGs could not be applied universally and that certain providers would need to be excluded. At this time, five types of specialty hospitals (psychiatric, rehabilitation, long-term, children's, and cancer) and two types of distinct-part units in general hospitals (psychiatric and rehabilitation) are exempt from PPS. These providers are excluded primarily because DRGs fail to accurately predict the resource costs for the patients they treat.

PPS-excluded hospitals and distinct-part units are subject to the payment limitations and incentives established in the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA). Each provider is paid on the basis of its current Medicare-allowable inpatient operating costs per discharge, or a target amount. The target amount is based on the provider's allowable costs per discharge in a base year, trended to the current year by an annual update factor. Medicare's share of allowable capital costs is paid in its entirety.

Under TEFRA, a facility with inpatient operating costs per discharge that are less than its target rate receives its costs plus either 50 percent of the difference between its cost per discharge and the target or 5 percent of the target amount, whichever is less. A facility with inpatient operating costs per discharge above its target rate receives the target amount plus half the difference between that

amount and its cost per discharge, but no more than 110 percent of the target. Further, the Secretary is required to provide for an adjustment to a facility's payment when events beyond the facility's control distort its cost increase for a cost reporting period.

Although the Congress legislates the update to the TEFRA target amounts, ProPAC and the Secretary of Health and Human Services are required to recommend an annual update factor. For fiscal years 1994 through 1997, each facility will receive an update ranging from the projected increase in the market basket to the market basket increase minus 1.0 percentage points. The Commission recommends an average update to the target rate equal to the market basket increase minus 1.0 percentage points for fiscal year 1995 (see Table 2-4).

Market Basket—The update recommendation is determined primarily by the projected increase in the PPS-excluded market basket index, which measures the price of inputs used by these facilities in treating Medicare patients. The current HCFA market basket increase forecast for fiscal year 1995 is 3.7 percent. There is no difference between the HCFA and ProPAC market basket forecasts for 1995, so no adjustment to reflect this difference is necessary.

Forecast Error Correction—ProPAC believes the update should be corrected for substantial past market basket forecast errors. Because projections must rely on available data, they cannot accurately anticipate all future economic conditions that may affect input prices. Updates based on market basket forecasts, therefore, may result in overpayments or underpayments to PPS-excluded facilities, which should not be carried forward to subsequent payment years. The market basket projection used to

Table 2-4. Recommended Update Factor for PPS-Excluded Hospitals, Fiscal Year 1995

Components of the Update	
Fiscal year 1995 HCFA PPS-excluded market basket forecast*	3.7%
Adjustment for difference between HCFA and ProPAC market baskets	0.0
Correction for fiscal year 1993 forecast error	-1.0
Allowance for scientific and technological advances	0.0
Total update	2.7

* Market basket forecast provided by the Health Care Financing Administration, Office of the Actuary, December 1993. The market basket forecast is subject to change as more current data become available.

update TEFRA target amounts in fiscal year 1993 was 4.2 percent. The actual market basket increase, however, was only 3.2 percent. Therefore, ProPAC's update recommendation includes a -1.0 percentage point adjustment for fiscal year 1993 market basket forecast error.

Scientific and Technological Advances—

ProPAC also believes the update should include an allowance for scientific and technological advances for PPS-excluded hospitals and distinct-part units. This allowance is intended to encourage providers to adopt quality-enhancing technologies, even when they increase costs. It reflects the Commission's judgment about the expected growth in the cost of providing inpatient services resulting from scientific and technological advances.

To reach an informed judgment on the appropriate allowance, ProPAC examined emerging technologies used in PPS-excluded facilities to estimate their operating costs and predict their increased use in fiscal year 1995. (See Appendix A for a full discussion of ProPAC's methodology.) To be included in the estimate, a technology must be emerging (that is, diffused beyond minimal use but not fully diffused), quality-enhancing, and cost-increasing. The contractor identified two scientific advances that met these criteria: the drugs sertraline hydrochloride and ondansetron hydrochloride. The total increase in operating costs due to these advances is estimated to be \$140,000, or 0.002 percent of Medicare payments to PPS-excluded facilities in fiscal year 1995. Therefore, the Commission is recommending no allowance for scientific and technological advances.

Unlike the update for PPS hospitals, the update for excluded facilities does not include a productivity adjustment. The productivity adjustment to the PPS update is based on the principle that Medicare should share in the savings generated by productivity improvements. However, Medicare automatically shares in the savings under TEFRA because part of any productivity increase is factored into reduced Medicare payments. ProPAC believes a further reduction in payments for gains in productivity is not appropriate.

Revising the Payment Method—In October 1992, the Commission submitted an interim report on payment reform for PPS-excluded providers. The findings suggested that in aggregate,

TEFRA payments to PPS-excluded facilities appeared adequate for most provider types. Notable exceptions were psychiatric hospitals and distinct-part units, and long-term hospitals. However, substantial variation in the proportion of facilities with costs exceeding their target rate was found across and within all provider types. Further, the Commission could not make definitive conclusions regarding the adequacy of the TEFRA payment system due to the lack of information on the amount of exceptions payments made to PPS-excluded providers.

Specialty hospitals and distinct-part units were excluded from PPS primarily because the DRG patient classification system does not adequately group patients in these facilities according to resource use. However, considerable effort has been put into developing a patient classification system for rehabilitation hospitals and distinct-part units based on patient functional status. The Commission supports such efforts in hope that a prospective payment system for specialty facilities can be developed.

Although at this time prospective payment for these facilities is not feasible, modifications to the current TEFRA payment method may be possible. Each type of PPS-excluded provider has unique patient characteristics and cost experiences, yet for payment purposes all types are treated similarly. TEFRA does not recognize varying factors that affect costs, such as changes in case mix and treatment patterns, and all providers receive the same basic update to the target rate. A more complete understanding of the factors that differentiate these facilities may help to identify appropriate revisions to the current TEFRA payment system and update formula.

ProPAC encourages the Secretary to examine further the factors contributing to cost increases among these facilities. The Commission will continue to evaluate the appropriateness of the TEFRA system for PPS-excluded providers, and will respond to the Secretary's proposal for payment reform when it becomes available.

Recommendation 14: Update to the Composite Rate for Dialysis Services

The fiscal year 1995 update recommendation for the composite rate for dialysis services accounts for the following:

- **The projected increase in the market basket for dialysis services in fiscal year 1995, estimated at 4.3 percent;**
- **A positive adjustment of 0.7 percentage points to reflect the additional costs associated with scientific and technological advances;**
- **A negative adjustment of 1.0 percentage points to encourage productivity improvements; and**
- **A negative discretionary adjustment of 4.0 percentage points to reflect the relationship between payments and estimated fiscal year 1994 costs.**

This results in a net update recommendation of zero percent.

In 1972, the Congress extended Medicare coverage to almost all U.S. residents with end-stage renal disease. These beneficiaries are entitled to all Medicare-covered services, including dialysis treatments or transplant services to replace lost kidney function. Since 1983, payment for outpatient dialysis services has been based on a composite rate. The composite rate is a prospective payment intended to cover the costs of services typically furnished during a dialysis treatment. Derived from data from 1977 through 1979, it represents a weighted average cost per treatment for dialysis provided in facilities and at home according to the proportion of beneficiaries treated in each site. This method was intended to promote the less expensive home treatment alternative by paying the same amount for care provided in either site. The level of the composite rate has remained essentially unchanged since it was developed.

OBRA 1990 mandated that ProPAC recommend an annual update to dialysis payments. In developing its recommendation, the Commission first estimated how much payments should increase between fiscal years 1994 and 1995 using a methodology similar to that employed in the update recommendation for PPS hospital payments. Then it evaluated the appropriateness of the base payment rate to which the update factor would be applied. (See Appendix A for more information on the background analyses.)

Market Basket—The market basket index measures changes in the price of inputs dialysis facilities use to produce dialysis treatments. It is based on a set of input components that reflect all the goods and services dialysis providers purchase. Using 1992 dialysis facility cost report data, four types of inputs were identified: capital, labor, other direct costs, and overhead. Each component has a weight that represents its cost share, or proportion of total expenses. The price change for each component is measured by a proxy. The price proxies were adapted from those Medicare uses for the PPS, home health agency, and skilled nursing facility market baskets. The Commission estimates that the prices of inputs used in a dialysis treatment will rise 4.3 percent between fiscal years 1994 and 1995.

Scientific and Technological Advances—The scientific and technological advances allowance is intended to encourage dialysis facilities to adopt new technologies that improve the quality of patient care, even when they increase costs. It is an estimate of the combined operating and capital costs of new and emerging dialysis-related technologies, and their expected increase in use for the coming fiscal year. To reach an informed judgment on the appropriate allowance, ProPAC examined a set of the most important new cost-increasing innovations in the dialysis industry. On the basis of this analysis, the Commission concluded that Medicare payments should rise by 0.7 percent to cover the costs of new technologies in fiscal year 1995.

Productivity Improvement—The productivity adjustment is intended to give dialysis facilities a financial incentive for continued improvements in productivity through the more efficient use of resources. It is an estimate of the productivity gains that can be expected for the coming year. The Commission considered a range of options to reach an appropriate adjustment. ProPAC's historical productivity study and recent trends in the cost per dialysis treatment suggest a higher estimate may be appropriate. Concerns that further reductions in the length of dialysis sessions may adversely affect quality of care support a lower adjustment. ProPAC concluded that a modest productivity target of 2.0 percent arrives at the proper balance. The savings from productivity gains should be shared equally by the industry and Medicare, resulting in a productivity adjustment of -1.0 percentage points.

Discretionary Adjustment—ProPAC's analysis indicates that in aggregate, the estimated cost per dialysis treatment in fiscal year 1994 is about 5 percent below the median wage-adjusted composite rate. This varies by type of facility. The estimated cost per treatment for independent facilities is about 13 percent below the payment rate. Costs are about 16 percent above payments for hospital-based facilities. Determining the true difference between payments and costs was complicated by data deficiencies. Nonetheless, the Commission believes it is important to recognize this difference in its update recommendation through an adjustment to the base composite rate.

The latest cost data probably are overstated substantially because they have not been audited, although the magnitude of this effect is not known. Inconsistent cost reporting practices and cost allocation methods raise additional concerns about data comparison and reliability across facilities. Further, government regulations implemented in 1992 have likely increased facility costs, but the exact amount is not known. In the Commission's judgment, a discretionary adjustment of -4.0 percentage points balances the need to account for the difference between 1994 estimated costs and payments with uncertainties regarding the current level of costs.

ProPAC appreciates HCFA's continued efforts in compiling the database of unaudited dialysis facility cost reports and in auditing a sample of fiscal year 1991 cost reports. These data are important in developing annual update recommendations. The Commission supports HCFA's actions to improve the quality of the cost data by adding edits to the Hospital Cost Report Information System, revising the cost report schedules and instructions, and working with facilities and fiscal intermediaries to ensure that cost reports are filed correctly and completely. These measures will enhance the accuracy and reliability of the data, which is essential for decision making.

ProPAC will continue to evaluate payments to dialysis facilities. Its analysis will focus on the difference between payments and costs and how this relationship varies across providers. Additionally, ProPAC will take a closer look at the disparity between reported and audited costs to better assess the adequacy of payments. Because accurate and reliable data are crucial to this undertaking, the

Commission urges HCFA to continue its measures to improve data quality and to regularly audit a representative sample of independent and hospital-based dialysis facility cost reports.

Other Payment Policies

PPS adjusts hospital payments in several ways to account for factors that may legitimately affect hospital costs, such as the level of teaching activity, wage rates, and patient mix.

As part of its mandate, the Commission examines the distribution of PPS payments across hospitals and makes recommendations concerning the various adjustments to the payment system. ProPAC considers adjustments that are made both at a hospital level and at a case level. In this year's report, the Commission recommends improvements in the PPS hospital wage index, outlier payment policy, and the indirect medical education adjustment.

ProPAC is also responsible for making recommendations on Medicare payment for facility services provided in settings other than the inpatient hospital. These payments have grown rapidly throughout the 1980s and have become an increasingly important part of the Commission's agenda. In this report, ProPAC's recommendations concern payment to skilled nursing facilities and hospital outpatient facilities.

Recommendation 15: Improvements in Hospital Wage Data

The Secretary should develop and implement improved methods for collecting data on employee compensation and paid hours of employment for hospital workers by occupational category. Once these data become available, the Secretary should implement an adjustment to the hospital wage index under PPS. This adjustment would correct the wage index for the inappropriate effects of including geographic differences in the mix of occupations employed.

The PPS wage index is intended to measure geographic differences in the unit prices of labor inputs hospitals purchase to provide inpatient services. Currently, hospitals report only total compensation

and total paid hours for all employees, regardless of occupation. Consequently, the average hourly wage calculated for each labor market area measures the average labor cost per hour for hospitals in the area, reflecting both unit prices for labor and the occupational mix of employees.

The Commission believes the wage index should adjust payments for relative differences in local labor prices, rather than in costs. While local market prices for labor presumably are determined by forces beyond the control of an individual hospital, the quantity and skill mix of labor purchased clearly result from management decisions. Differences among hospitals in mission, services offered, and patient population served may lead to variations in the volume and mix of labor required to produce needed inpatient services. The resulting differences in operating cost per discharge, however, are accounted for by other hospital-specific adjustments in PPS, such as the case-mix index, and by the indirect medical education and disproportionate share adjustments.

Hospitals located in large cities tend to employ a substantially more expensive mix of labor than hospitals located in rural areas. Consequently, the current wage index values for large urban areas tend to be too high, while those for rural areas tend to be too low. This results in overpayment for some hospitals and underpayment for others.

Previous ProPAC studies of 1988 occupation-specific compensation data reported by California hospitals suggest that an adjustment for occupational mix would increase the current wage index values for rural hospitals and decrease those for hospitals located in large urban areas. In 1992, the Commission again used the California data to examine the effect of occupational mix adjustment on wage indexes based on hospital-specific labor market areas. The results from this study were consistent with ProPAC's earlier findings. Adjustment for occupational mix may be particularly important for hospitals located in areas where there are few other hospitals.

Differences in occupational mix are an important factor affecting the accuracy of the wage index and equity of payment under PPS. To address this problem, the Commission previously has recommended collecting compensation and employee hours data

by occupational category. However, the Secretary has rejected this recommendation on several grounds, including the burden that would be imposed on the hospital industry and lingering doubts about the likely accuracy of occupation-specific data. The Commission believes accurate occupation-specific data can and should be obtained to correct the continuing bias in the wage index. Further, the burden of collecting such data could be minimized by adapting methods currently used by the Bureau of Labor Statistics to collect occupation-specific data for the employment cost index.

A second set of issues relates to the timeliness and accuracy of the wage data. Accurate and timely data are essential to improve equity of payments among hospitals under PPS. These issues are important because the wage index directly affects the distribution of about 70 percent of all payments under PPS, or some \$42 billion per year.

Under current law, the Secretary is required to update the wage index annually, beginning in fiscal year 1994. The wage data collected on hospitals' annual cost reports for this purpose, however, will continue to lag by three to four years because of the length of the cost reporting cycle, intermediary auditing, and data submission to HCFA. In addition, the wage data many hospitals submitted on their fiscal year 1990 cost reports were initially inaccurate or substantially incomplete. HCFA's experience collecting wage data by mail survey, with or without occupation-specific data, has been equally poor.

ProPAC believes the implementation of a new wage index based on hospital-specific market areas may help to improve the accuracy of the wage data. (See Recommendation 16.) With a nearest neighbor approach, a hospital's own data would generally have more influence on its wage index than is now the case. Therefore, hospital administrators may be more strongly motivated to ensure the quality of the information they submit.

Adjustment of the wage index for occupational mix would substantially improve payment equity among hospitals under the current PPS labor market definitions. It would be equally desirable for a wage index based on nearest neighbor labor market areas. In this case, ProPAC believes an occupational-mix

adjustment would reduce variation in wage index values among nearby hospitals and would help the wage index more accurately reflect the labor price levels hospitals face.

Recommendation 16: Improvements in the PPS Hospital Wage Index

The Secretary should substantially revise the hospital wage index under PPS for fiscal year 1995. The revised wage index should be calculated using hospital-specific labor market definitions based on hospital geographic proximity measured by the air-mile distances between nearby hospitals. The Congress should repeal the current statutory provisions relating to geographic reclassification for the wage index.

The Commission believes the wage index would be substantially more accurate if it were calculated using hospital-specific labor market areas based on geographic proximity rather than on political boundaries, as is now the case. Under this approach, a labor market area would be defined for each hospital (the target hospital), including only hospitals located in its immediate vicinity. Consequently, each hospital's "nearest neighbor" wage index would reflect its own wage rate averaged with those paid by other nearby hospitals.

This approach has strong intuitive appeal. Hospitals located near each other represent potential alternative sources of employment for health care workers living in the area. Therefore, in almost all instances, the average wage rate paid by all nearby hospitals should provide a reasonably accurate measure of the amount the target hospital must pay to compete for labor.

ProPAC's analysis suggests that hospital-specific labor market areas offer important advantages compared with the present definitions. The current market areas have fixed borders defined by the county and state boundaries of metropolitan statistical areas and statewide rural areas. Hospitals located near each other but on opposite sides of such borders often have widely different wage indexes and PPS payment rates, even though they face similar local market conditions. By contrast, nearest neighbor labor markets for nearby hospitals overlap substantially, including many of the same hospitals.

This tends to reduce the likelihood of large differences in their wage index values.

A second advantage is that nearest neighbor labor market areas generally are much smaller than the current labor market areas. Consequently, they more effectively capture geographic differences in market wage levels.

Under current policy, hospitals located in the same labor market area have the same wage index, which is based on the average wage for the area. Excluding the effects of geographic reclassification, about 65 percent of all PPS hospitals incur a large loss or a large gain because their hourly wage rates differ from the labor market average by more than 5 percent. Because many labor market areas are large, however, local hospital wage levels often vary substantially within them. As a result, a significant portion of the losses and gains currently experienced by individual hospitals are attributable to their location in a part of the market area where local wage rates are higher or lower than the labor market average. Although many of these hospitals pay wage rates that are consistent with those of other nearby hospitals, they are inappropriately penalized or rewarded because the local wage level differs from the labor market average. This results in inequitable payment.

Under a nearest neighbor approach, each hospital's wage index would be based on the level of wage rates paid by hospitals located nearby. Consequently, many of the hospitals that now face large losses or gains would find these discrepancies reduced or eliminated. Other hospitals are inappropriately sheltered by the current system. Many of these hospitals would find their small losses or gains substantially altered, reflecting the level of wages in their immediate area.

Implementation of a nearest neighbor wage index in fiscal year 1995 would result in a substantial redistribution of PPS payments among hospitals. However, these changes would make payments more accurate and equitable.

ProPAC has examined a number of alternatives for determining the most appropriate size of nearest neighbor labor market areas. Increases in the size of the market areas tend to have two different effects. On the one hand, the wage index values for

nearby hospitals are less likely to be substantially different. Consequently, hospitals located near each other are less apt to be paid significantly different PPS payment rates. This occurs because each hospital's wage index is based on wage data for a larger number of hospitals.

On the other hand, larger market areas include hospitals that are located farther from the target hospital. Consequently, wage rates within each area tend to vary more. This suggests that some of the more distant hospitals may face labor market conditions that differ from those in the immediate vicinity of the target hospital. Therefore, using larger market areas may yield wage index values that are less accurate indicators of the labor market conditions faced by the target hospital.

Finding a balance between these conflicting outcomes is complicated by the fact that hospital circumstances vary widely. About 30 percent of all PPS hospitals are located in relatively high density areas, with seven or more other PPS hospitals located within a radius of 20 miles. At the other end of the spectrum, 46 percent of all PPS hospitals are located in low density areas, with fewer than three other hospitals located within 20 miles.

For hospitals in areas where there are many other hospitals nearby, hospital-specific labor market areas could include the nearest 15 hospitals within a 20-mile radius. This would keep the variability in wage rates at a low level, while limiting the frequency of large differences in wage indexes among nearby hospitals. For hospitals located in areas with few hospitals nearby, hospital-specific markets should include at least three other hospitals. In many instances, this would require going beyond 20 miles. To avoid incorporating hospitals facing substantially different labor market conditions, however, the maximum distance should be 30 to 35 miles.

In short, a labor market area could be defined for each hospital by including the nearest 15 hospitals within a 20-mile radius, but going up to a maximum of 30 or 35 miles to find at least three other hospitals. Although any of these criteria could be modified, minor changes probably would not make the wage index less accurate. A wage index based on labor market definitions similar to those outlined above would, in ProPAC's view, be far more accurate than the current one.

Implementation of this approach would impose both one-time and ongoing administrative burdens on HCFA. For example, HCFA would need to verify the latitude and longitude coordinates for each PPS hospital. Methods and procedures would need to be developed for incorporating new hospitals into the wage index, and for dealing with multi-campus hospitals.

In addition, HCFA would need to devise methods and administrative processes for addressing requests for exceptions. The Commission's research shows that hospital-specific labor market areas defined using air-mile distances generally correspond closely with those defined using road miles. Differences will occur, however, because of the presence of major transportation barriers such as a river or mountainous terrain. An exceptions process may be needed where a road-mile definition would produce a substantially different wage index.

ProPAC recognizes that adoption of a new wage index based on nearest neighbor labor markets will have a significant effect on PPS payments for many hospitals. This effect is due partly to changes in the labor market definitions, and partly to eliminating geographic reclassification for the wage index. The Commission believes strongly that continued reclassification of the wage index would not be needed once a nearest neighbor wage index is implemented.

Hospitals whose wage index values are reduced by the adoption of a nearest neighbor wage index would receive lower payments because of this change. ProPAC believes, however, that such changes in hospital wage index values generally would reflect improvements in accuracy and fairness. Hospitals whose wage indexes decline would be primarily those previously sheltered by their inclusion in an inappropriately large labor market area or those that received an inappropriately high wage index because of geographic reclassification.

Recommendation 17: Nursing Facility Wage Index

The Secretary should collect data on employee compensation and paid hours of employment for employees of nursing facilities that care for Medicare skilled nursing

facility patients. Once these data become available, the Secretary should develop a nursing facility wage index and use it to adjust Medicare skilled nursing facility payments.

Medicare payments to nursing facilities are adjusted by the hospital wage index to reflect geographic differences in labor costs. Yet the geographic differentials in the cost of labor for hospital employees differ from those for employees of nursing facilities. This may be because there are state variations in regulations affecting staffing of nursing facilities that differ from those of hospitals. Further, through their Medicaid programs and certification and oversight roles, states have a major impact on the costs and structure of nursing facilities. Some of this variation is being reduced through provisions in OBRA 1987 that mandated stepped-up Federal oversight of nursing facilities.

Another potential reason why the geographic differentials in hospital wages do not adequately reflect variation in nursing facility wages may be skill mix differences. Compared with hospitals, nursing facilities employ more aides. The relative differences in the salaries of aides and nurses may not be the same across geographic areas. These differences in the employee mix and relative wages are not reflected by the hospital wage index.

An accurate wage index is necessary to account for geographic differences in wages. As with the hospital wage index, the method used to collect wage and hour data for nursing facilities should be prospective. Further, the Commission suggests the Secretary phase in the use of the nursing facility wage index to allow facilities to adjust.

ProPAC recognizes that collecting nursing facility wage data and developing an index may take several years. The Commission investigated an interim approach of separate cost limits for each Census division to account for geographic cost differences. (See Appendix A for a more complete discussion.) This technique substantially changed the distribution of payments compared with the way payments were allocated under the current hospital wage index or a simulated nursing facility wage index. It inappropriately adjusted for cost variation caused by differences in state Medicaid payment policies and rates and other state certification requirements. The

Commission thus rejects the interim measure, recommending instead that efforts focus on the development of a nursing facility wage index.

Recommendation 18: Improving Outlier Payment Policy

The Commission believes the outlier payment provisions of the Omnibus Budget Reconciliation Act of 1993 will improve the current policy for identifying outlier cases and determining outlier payments under PPS. However, the following changes also should be implemented for fiscal year 1995:

- **The estimated cost of the case and the outlier payment amount should no longer be adjusted to reflect the hospital's indirect medical education and disproportionate share status.**
- **The marginal cost factor for cost outliers should be increased to 80 percent.**

These changes would further increase the effectiveness of outlier payment in protecting against the risk of large losses on some cases. They would also improve the distribution of outlier payments across hospitals, including hospitals that receive a large number of transfer cases.

The DRGs used to determine PPS payment are designed to group cases with similar resource requirements. The hospital's payment for each case is based on the nationwide average cost of patients in the DRG. The hospital is at risk for the difference between the cost of the case and the payment it receives. However, costs for individual cases in any DRG may vary widely, due to patient-specific or treatment-specific factors that are not incorporated in the current classification system. Even an efficient hospital, therefore, may have some cases with much higher than average resource requirements. These cases represent large financial losses to the hospitals that treat them.

In general, most hospitals should be able to offset losses from more costly cases with gains from less costly ones. However, this averaging principle does not adequately protect hospitals with a small number of admissions, because they may be unable to

offset the losses associated with an occasional very costly case. It also fails to protect certain hospitals that regularly care for a greater than average share of costly patients.

To recognize this, additional payment is provided to hospitals for cases that are exceptionally resource intensive. Outlier payment is also intended to protect against incentives that may adversely affect certain types of patients or cases that are perceived to be associated with a greater likelihood of financial loss.

Definition of Outlier Cases—Currently, hospitals receive additional payment for cases that have exceptionally long stays (day outliers) or high costs (cost outliers). Cases that qualify as both day and cost outliers are paid according to the formula that yields the highest payment. Over time, there has been increased emphasis on cost as a criterion for identifying outlier cases and determining outlier payments. The estimated proportion of outlier payments based on the day outlier formula has fallen from 85 percent in fiscal year 1984 to 32 percent in fiscal year 1994.

The Commission consistently has supported the increased emphasis on cost outliers relative to day outliers because the cost criterion better identifies the cases associated with the largest losses to the hospital. In its March 1993 *Report and Recommendations to the Congress*, ProPAC recommended eliminating day outlier payments over a three-year period. In OBRA 1993, the Congress required that payments for day outlier cases be phased out beginning in fiscal year 1995 and ending in fiscal year 1998.

As the emphasis on cost outliers grows, however, it becomes more important to measure case-level costs accurately. Because costs are not reported for individual cases, the only way to identify cost outlier cases is to adjust reported charges. The Commission intends to analyze alternative methods for estimating case-level costs, their relative accuracy, and their implications for the distribution of outlier payments.

Outlier Thresholds—A case does not qualify for outlier payment unless it exceeds the day or cost outlier threshold. One problem with the current threshold is that the loss incurred before outlier payments begin is not the same for every DRG, because DRGs have different payment amounts. Further, the loss is not the same for every hospital,

because the cost of each case is adjusted by the hospital's IME and DSH payment adjustments.

A threshold based on a fixed loss—that is, one that is set so that the loss incurred before outlier payments begin is equivalent for every case and hospital—would be more effective in reducing the impact of large losses associated with individual cases. In its March 1993 *Report and Recommendations to the Congress*, the Commission recommended that the cost outlier threshold for each case at each hospital should be a fixed amount (adjusted for differences in area wages and cost of living) above the DRG payment rate for the case. In OBRA 1993, the Congress enacted this change, to begin in fiscal year 1995.

Another issue is whether estimated costs and outlier payments should be adjusted to reflect the hospital's teaching and disproportionate share status. Currently, the estimated cost for each case is reduced by the hospital's IME and DSH payment adjustments. For example, a case costing \$50,000 at a teaching or disproportionate share hospital is considered less costly for the purposes of outlier payment than one costing \$50,000 at a non-teaching, non-disproportionate share hospital. The amount by which the estimated cost exceeds the outlier threshold (which determines the outlier payment amount) thus is smaller for the case treated at the teaching or disproportionate share hospital. The resulting outlier payment amount is then increased by the hospital's IME and DSH adjustments, but this generally is not enough to offset the loss in outlier payments resulting from the reduced cost estimate for the case.

ProPAC's analysis indicates that these adjustments result in substantial underpayment for outlier cases treated by teaching and disproportionate share hospitals. The IME and DSH adjustments should apply to the base payment amount that hospitals receive for every case. Outlier payments, on the other hand, are intended to defray the loss incurred beyond some threshold in treating exceptionally expensive cases. Teaching or disproportionate share hospitals should not have to bear greater losses before outlier payments begin than do otherwise similar hospitals. Moreover, outlier payments should be based on the loss incurred on the case rather than the hospital's teaching or disproportionate share status.

Marginal Cost Factors—Once a case exceeds the relevant outlier threshold, the payment rate depends on the marginal cost factor. For example, hospitals are paid 75 percent of the estimated cost beyond the threshold for cost outliers and therefore must bear 25 percent of the additional estimated cost beyond the threshold. This is intended to provide an incentive to continue to control the costs of outlier cases. In addition, it is believed that the additional payment for outlier cases should be less than the estimated cost beyond the threshold because of a potential bias in the way cost is estimated.

The changes discussed above would improve the effectiveness of outlier payment policy in identifying and directing payment to the most costly cases. Outlier payments no longer would be made for cases on which the hospital incurs only small losses or even gains. Given these changes, the Commission believes it would be appropriate to compensate hospitals for a higher percentage of the losses beyond the cost outlier threshold. The marginal cost factor for cost outliers therefore should be raised to 80 percent.

Outlier Payment Pool—The outlier pool is expressed in terms of the percentage of total PPS payments (excluding the IME and DSH adjustments) that is set aside for outlier payments. By law, it must be between 5.0 percent and 6.0 percent; it currently is set at 5.1 percent.

Last year, ProPAC recommended that the outlier payment pool should be increased to 6.0 percent of total PPS payments. Upon further examination, however, the Commission has determined that the reduction in DRG payment rates required to fund a larger outlier pool would offset the benefit from reduced losses that hospitals would have to incur before outlier payments begin (see the discussion below). The Commission will continue to examine the implications of changing the size of the outlier pool in the context of recent and proposed changes in outlier payment policy.

Financing Outlier Payments—Outlier payments are financed by across-the-board reductions in the DRG payment amounts for urban and rural hospitals—5.5 percent and 2.3 percent, respectively, in fiscal year 1994. These reductions reflect the difference in the anticipated percentages of outlier

payments for the two groups. In fiscal year 1995, with the elimination of the differential between the standardized payment amounts for rural and other urban areas, these reductions will be equal for all hospitals.

Recent ProPAC analyses indicate that outlier cases and payments are concentrated among groups of hospitals and DRGs. These findings suggest that financing outlier payments by an equal reduction in the basic DRG rate paid for each case results in overpayment for DRGs with a high percentage of outlier payments and underpayment for DRGs with a low percentage of outlier payments.

Financing outlier payments by reducing the payment rates for cases in each DRG, based on the anticipated percentage of outlier payments in that DRG, holds promise in improving the effectiveness of outlier payments and overall payment equity. Last year, ProPAC recommended this change. The Commission is concerned, however, about the potential redistribution of payments that would result. ProPAC intends to continue its work on this issue, specifically in analyzing the impact on payments across hospitals and types of cases.

Transfer Cases and High-Transfer Hospitals—ProPAC has also examined the impact of the outlier payment changes enacted in OBRA 1993 and the additional changes proposed by the Commission. The results indicate that while the OBRA 1993 changes generally target a higher proportion of outlier payments to the most expensive cases, they actually reduce estimated payments to transfer cases and the hospitals that most frequently receive them.

This reduction is due largely to the application of the IME and DSH payment adjustments in estimating outlier costs and calculating outlier payments. As discussed earlier, the application of these adjustments results in substantial underpayment for outlier cases at teaching and disproportionate share hospitals. Because many of the hospitals that receive the most transfer cases are teaching hospitals, and because a high proportion of transfer cases are outliers, the effect on these cases and hospitals is particularly adverse.

The implementation of the additional changes recommended by the Commission would substantially increase payments for transfer cases and hospitals

that receive a large number of these cases, by targeting more outlier payments to the cases associated with the largest losses. ProPAC's analysis of these issues will be described in more detail in its technical report, *Outlier Payment Policy* (June 1994).

Recommendation 19: Level of the Indirect Medical Education Adjustment to PPS Operating Payments

The Commission recommends that the indirect medical education adjustment to PPS operating payments be reduced from its current level of 7.7 percent to 7.0 percent for fiscal year 1995. This reduction should be implemented with the anticipated decrease in indirect medical education payments returned to all hospitals through a proportionate increase in the standardized payment amounts. The Commission also recommends continuation of the indirect medical education adjustment to PPS payments until an alternative system of compensating appropriately for the higher costs of patient care in teaching institutions is fully operational.

The IME adjustment is intended to recognize the higher costs teaching hospitals incur in treating Medicare patients. These higher costs have been attributed to caring for patients with more severe or complex illnesses, providing a broader scope of services and more services per patient, and using a costlier mix of staff.

ProPAC annually estimates the relationship between teaching intensity and standardized Medicare operating costs per discharge. The standardization controls for differences in costs that are accounted for by other PPS payment factors. These include geographic differences in the PPS base payment amounts, the local area wage index, the hospital's Medicare case-mix index, and outlier payments for extremely long or costly cases. The most recent analysis was based on cost data from the eighth year of PPS and payment rules for fiscal year 1994. The results indicate that, on average, a 10 percent difference in teaching intensity is associated with a 5.2 percent difference in Medicare operating costs per discharge.

The estimated relationship between costs and teaching intensity is affected by other aspects of the

payment system. For example, the differential in rural and other urban standardized payment amounts will be eliminated in fiscal year 1995. If the elimination of this differential were effective in fiscal year 1994, the IME estimate would rise to 5.3 percent. Implementation of improvements in the PPS hospital wage index and outlier payment policy would increase Medicare payments to teaching hospitals. (See Recommendations 16 and 18.) These changes also would require that the IME adjustment be reduced to reflect more accurately the relationship between costs and teaching intensity.

The Commission recognizes that since PPS began, the Medicare program has more than adequately compensated teaching hospitals for the costs of treating Medicare patients. The current 7.7 percent IME operating payment adjustment is substantially higher than the empirical estimate of 5.2 percent indicated by the most recent analysis. Moreover, PPS operating margins consistently have been higher for teaching hospitals than for non-teaching hospitals. PPS margins have been especially high for major teaching hospitals (that is, those with the highest levels of teaching intensity).

However, the Commission is concerned that the continued operation of these hospitals and the fulfillment of their unique role in the provision of health care might be impaired by a substantial immediate reduction of Federal support. ProPAC believes the Medicare program's responsibility to its enrollees is broader than merely paying for services for beneficiaries. This responsibility includes maintaining access to the quality of care and types of services available at teaching hospitals, which might be affected adversely by a sharp decline in IME payments.

Given these considerations, the Commission believes a gradual reduction of the IME adjustment is a prudent course of action. ProPAC's recommendation would reduce the adjustment by approximately one-third of the difference between the current adjustment and the Commission's estimate of 5.2 percent. The Commission will continue to examine the financial status of teaching hospitals to avoid any deleterious effects on access to quality care for Medicare enrollees. This approach recognizes as an ultimate objective the use of the IME adjustment to compensate appropriately for differences in Medicare costs that are attributable to differences in teaching intensity.

The Health Security Act would eliminate the IME adjustment to PPS payments beginning in fiscal year 1996. Instead, Medicare and all other payers would contribute to an Academic Health Center Account, from which the Secretary would distribute payments to teaching institutions. Medicare's proposed \$2.1 billion contribution to this account in 1996 is based, in part, on estimated IME expenditures using a 3.0 percent IME payment adjustment.

The 3.0 percent factor is consistent with previous estimates—using HCFA's methodology—of the relationship between teaching intensity and Medicare inpatient operating cost per case. This consistency, however, is an artifact of HCFA's analytic approach, which offsets the disproportionate share hospital payment adjustment against each hospital's Medicare costs per discharge. ProPAC does not offset costs for DSH payments, because the Commission has determined that DSH payments generally do not reflect differences in costs.

The Health Security Act would reduce the DSH adjustment, because it would also reduce the number of uninsured and underinsured patients. A smaller DSH adjustment would raise HCFA's estimates of the relationship between teaching intensity and Medicare inpatient costs per case almost to the level of ProPAC's estimates. This change would not affect ProPAC's estimates. Thus, a 3.0 percent adjustment is likely to be substantially lower than either HCFA's or ProPAC's estimate of the empirical relationship between teaching intensity and Medicare inpatient costs per case.

ProPAC is concerned that the level of funding of the Academic Health Center Account and the formula for distributing these funds are not based on objective analysis of the costs incurred by teaching hospitals in carrying out their functions. (See Recommendation 3.) Therefore, the Commission believes Medicare can best carry out its responsibilities to maintain access to quality care for Medicare beneficiaries and other patients by retaining the IME adjustment to PPS payments until an alternative system of compensating appropriately for the higher costs of patient care in teaching institutions is fully operational.

Changes in the IME adjustment should be considered in the context of its interactions with other

components of the payment system and its effects on PPS payments, as well as hospitals' overall financial status. The impact on the quality of care and access to that care should also be considered. In general, any change in Medicare payment policy must be considered in terms of its effect on the health care system as a whole.

In the coming year, ProPAC will continue to examine the level and structure of the IME adjustment, as well as other factors that affect hospitals' payments, costs, and financial condition. The distribution of PPS and total margins and the other effects of possible changes in the IME adjustment will be studied. The Commission will also examine the potential effects on teaching hospitals of proposals in the Health Security Act. (See Recommendation 3.) A description of ProPAC's most recent analyses is available in the Commission's technical report, *Indirect Medical Education and Disproportionate Share Payment Adjustments to Hospitals* (March 1994).

Recommendation 20: Prospective Payment Method for Outpatient Services

The Commission believes a prospective payment system for hospital outpatient services should be implemented. Outpatient payment reform should result in consistent policies across all sites and providers. Payment should be based on a prospective price per unit of service until other methods can be developed that would appropriately control the volume of services. The payment rate should be adjusted to reflect justifiable cost differences across settings.

The Commission supports congressional intent to establish prospective payment methods for hospital outpatient services. These methods will create incentives for controlling costs by offering providers the opportunity for a profit as well as the risk of financial loss. Such incentives are enhanced further as more services are bundled within the rate. The current payment method for hospital-provided outpatient services contributes to both cost and charge inflation. Because payments incorporate at least a portion of facility-specific costs or charges, hospitals that reduce their costs receive less in payments. Thus, there is little financial incentive to deliver care more efficiently.

The Commission believes the method and unit of payment should be comparable across settings. This consistency is necessary because the ambulatory services offered by hospitals are also furnished in other sites, such as free-standing surgery centers and physician offices. Moreover, most ambulatory care is provided outside of hospital settings. Additionally, the various payment methods and units that Medicare employs for ambulatory services encourage choosing the site of service on the basis of financial rather than clinical considerations. Finally, the lack of payment comparability across sites inhibits efforts to control overall health care expenditures.

Although the same method and unit should be used to determine payment to all providers of ambulatory services, the payment rate may vary for different providers and across treatment sites. There are many reasons why costs may differ among similar providers (such as teaching and non-teaching hospitals) and across treatment sites (such as hospitals and physician offices). The Commission believes it is desirable to recognize in the payment system those factors that represent a benefit to society and are beyond the control of the provider, such as the costs associated with medical education. Further, these costs should be shared more broadly across the health care system to avoid financial discrimination against teaching facilities.

Medicare should establish a prospective payment rate per unit of service based on methods currently used in other settings. Such a system would go a long way toward improving the financial incentives to providers by rewarding efficiencies in service provision and penalizing inefficiencies. ProPAC recognizes that such a system should be only an interim measure, however, because it does not control the growth in volume of services. The Commission therefore recommends that an outpatient prospective payment system be implemented as soon as possible to incorporate volume control measures. The payment should move from a fee for an individual service to a larger payment unit containing more services. Such a bundled approach, along with the integration of hospital-provided outpatient services into the physician volume performance standards, is necessary to control outpatient expenditures.

ProPAC will submit additional recommendations to the Congress as part of its analysis of the pending

report from the Secretary on outpatient payment. Problems with the current payment method, however, should not be ignored until a new system for outpatient services is fully implemented. Features of the current system that encourage cost and charge inflation and increase beneficiary liability should be changed immediately.

Recommendation 21: Revision of the Payment Formula for Outpatient Services

Until prospective payment systems can be implemented for hospital outpatient services, the blend formula used to calculate hospital payments for ambulatory surgery center-approved procedures, radiology services, and diagnostic services should be revised. The formula should subtract beneficiary copayment after the total payment has been calculated. The resulting reduction in Medicare program payments to hospitals should be used to partially offset increases in program expenditures due to reducing beneficiary liability.

The total Medicare payment for certain ambulatory surgery, radiology, and other diagnostic services is based on the lesser of costs, charges, or a blended amount. The beneficiary's copayment is 20 percent of charges. Medicare's share is intended to be the total payment amount minus the beneficiary copayment. For facilities paid the blended amount, however, program payments are not reduced by the full amount of the copayment. Thus, total payments to hospitals for outpatient services are higher than the Congress intended.

The formula that determines the blended amount combines two parts: the first is the hospital-specific portion of payment based on the lesser of costs or charges minus 20 percent of charges; the second is the prospective portion based on 80 percent of the applicable prospective rate. For ambulatory surgery, the prospective rate is the payment for the relevant procedure category used in paying free-standing ambulatory surgery centers (ASCs). For radiology and diagnostic services, it is a portion of the payment in the physician fee schedule that is intended to represent the technical expense of providing that service.

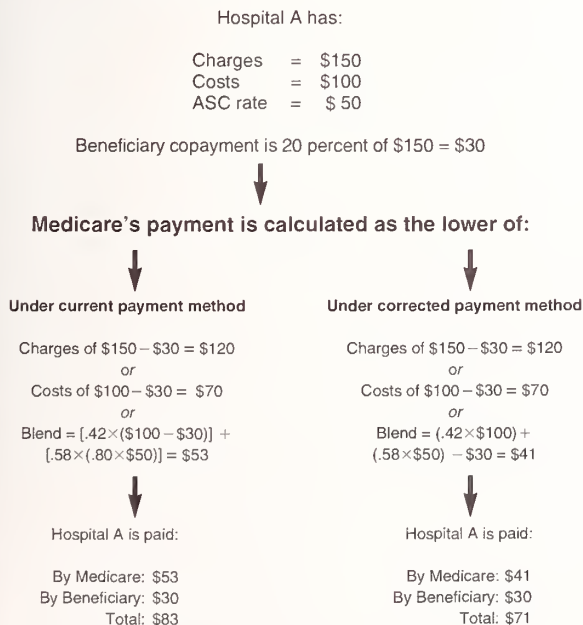
The second part of the formula, calculated at 80 percent of the prospective rate, inappropriately

assumes that 20 percent of the prospective rate equals 20 percent of charges (the copayment). In fact, charges are usually much higher than the prospective rate. Because the full contribution of beneficiary cost sharing is not captured, Medicare's share of hospital payments is overstated. To correct the formula, the copayment should be subtracted after the calculation of the total amount. For ambulatory surgery, the current and the corrected payment calculations are illustrated in Figure 2-1.

The Commission believes the current blend formula results in payments to hospitals that are higher than the Congress intended. Additionally, this quirk in the formula provides a strong incentive for hospitals to increase charges, which increases beneficiary liability and total payments to the hospital.

Correcting the formula would substantially reduce hospital payments. The Commission recommends this reduction in program expenditures should be used to partially offset the increase in program expenditures for outpatient services that results from setting the beneficiary copayment at 20 percent of payments rather than at 20 percent of charges. (See Recommendation 22.)

Figure 2-1. Current and Corrected Payment Formulas for Hospital Outpatient Services



SOURCE: ProPAC analysis.

Recommendation 22: Beneficiary Liability for Hospital Outpatient Services

Beneficiary coinsurance for hospital outpatient services should be limited to 20 percent of the Medicare-allowed payment, as it is in other settings. For services not paid on a prospective basis, beneficiary copayment would need to be estimated because it is not known at the time of service delivery.

Medicare payment to hospitals for most outpatient services is based at least partly on costs or charges. Payment for these hospital outpatient services is not prospective. Therefore, it is not known until the annual Medicare Cost Report is settled. Consequently, beneficiary liability is set at 20 percent of charges, rather than at 20 percent of payments as it is for the same services in other settings. Because hospital charges generally are higher than the costs or Medicare payments for outpatient services, beneficiaries are responsible for substantially more than 20 percent of costs or payments. In addition, for most providers charges have grown more rapidly than payments, resulting in disproportionate increases in beneficiary cost sharing.

HCFA estimated that, in fiscal year 1993, beneficiaries were responsible for 33 percent of the facility portion of hospital outpatient spending. This is considerably more than if the services had been provided in other ambulatory settings. This difference in cost sharing unfairly penalizes beneficiaries who receive care in hospital outpatient departments. Further, it provides incentives for beneficiaries to choose a site of care on the basis of financial considerations rather than the appropriateness of the setting.

ProPAC recommends reducing beneficiary liability for hospital outpatient services to 20 percent of payments. The Commission recognizes that until prospective payment is implemented for outpatient services, payment for a service will not be known at the time of delivery. Beneficiary liability based on payments, therefore, must be estimated. This could be done in several ways. Copayments could equal a lower percentage of charges, for example. Alternatively, the interim payment to charge ratio, which HCFA furnishes to all hospitals, could be used to determine the coinsurance amount for each service.

The Commission believes it would be ideal to address beneficiary coinsurance in conjunction with the implementation of a prospective payment system for hospital outpatient services. (See Recommendation 20.) It is not clear, however, when such a system will be in place. Reducing the coinsurance requirement thus should not be delayed until implementation of prospective payment. This change is necessary to reduce the significant burden on Medicare beneficiaries who receive outpatient services in a hospital.

ProPAC understands that reducing beneficiary coinsurance will substantially increase Medicare outlays and reduce hospital payments. The Commission therefore recommends phasing in the change in beneficiary liability over a five-year period.

Recommendation 23: Limit the Length of Outpatient Observation Stays

The Commission recommends limiting the length of hospital outpatient observation stays. Further, these changes should be coordinated with Peer Review Organizations so that appropriate short stay admissions are not denied. ProPAC supports HCFA's efforts in this regard.

Observation services are furnished by a hospital on an outpatient basis and include the use of a bed and periodic monitoring by a hospital's nursing staff. To be reimbursed by Medicare, these services must be reasonable and necessary to evaluate a patient's condition or determine the need for an admission. Medicare requires that the services are ordered by a physician. Observation stays are intended to last fewer than 24 hours, but there are no limits on how long an individual might stay under observation.

When Medicare's prospective payment system was implemented, Peer Review Organizations examined short inpatient admissions to prevent hospitals from receiving the full DRG payment for unnecessary stays. Outpatient observation stays,

paid on a cost basis, allowed Medicare reimbursement for services to beneficiaries who did not need to be admitted as inpatients.

Before 1989, Medicare's policy specified that if an observation stay lasted more than 23 hours, the stay would be deemed an inpatient admission. Thus, the hospital would receive the relevant DRG payment, and the stay would be subject to PRO review. This policy was never published in the *Federal Register*, however, so implementation and administration were inconsistent. After 1989, the limits for observation stays were removed.

ProPAC analysis indicates that even though observation stays are a small proportion of outpatient services, these stays—particularly long ones—are increasing. Because Medicare pays for these services on a cost basis, the growing number of longer observation stays has implications for higher Medicare outlays and beneficiary liability.

In 1991, 2.3 percent of all outpatient bills had observation stay charges, an increase of 77 percent over 1989. The proportion of these bills with stays lasting more than two days increased from 7.1 percent in 1989 to 11.1 percent in 1991. The average charge for all observation stays was \$3,212 in 1991. The implications for beneficiary liability are substantial because copayments are currently set at 20 percent of charges. Compared with the \$628 deductible for a hospital admission in 1991, the beneficiary copayment for an observation stay lasting two or more days averaged \$765.

HCFA is planning to limit the length of multiple-day observation stays. The change would require hospitals to admit a patient who has been under observation in an outpatient department for two consecutive midnights. The hospital would receive payment under the appropriate DRG, and the stay would be subject to PRO review. These changes might increase the number of short inpatient stays. HCFA plans to coordinate with the PROs to ensure that appropriate short admissions are not disallowed. The Commission supports all these efforts.

Appendixes



Appendix A. Background Material and Analyses

Appendix A provides background material and analyses to support some of the recommendations in this report. This appendix includes technical materials on the prospective payment system (PPS) operating update framework, the PPS capital update framework, the PPS update for payments to dialysis facilities, and background information on

the nursing facility wage index. Further analysis supporting Commission decision making is available through the Prospective Payment Assessment Commission's Technical Report Series. A complete list of these reports, which can be obtained by contacting the Commission, appears in Appendix B.

FISCAL YEAR 1995 PPS OPERATING UPDATE

The Prospective Payment Assessment Commission (ProPAC) annually recommends an update to the operating payment rates under Medicare's prospective payment system (PPS). This recommendation is based on a framework that takes account of changes in the costs of the goods and services hospitals use to provide care to Medicare patients, adjusted for changes in the mix of resources used and the types of patients treated. Table A-1 summarizes past update recommendations, increases in the market basket, and changes in PPS payments per case.

The increase in the market basket index and the adjustments for scientific and technological advances (S&TA), productivity, and case-mix change are the major components of the Commission's update framework. Each of these is discussed in detail below.

Market Basket Index Increase

The PPS hospital market basket index measures the prices of the goods and services used as inputs by hospitals in providing inpatient care. As hospital input prices increase, the costs of providing the same care in the same way rise proportionately. The projected change in the market basket index is thus an integral component of the Commission's PPS update factor recommendation.

The market basket consists of 28 components reflecting the full range of goods and services that hospitals purchase. Each component has a weight that represents its proportion of total hospital expenses. Because data are not available on actual changes in individual prices, the price change for each component is measured by a proxy. All but one of the price proxies used in the market basket are based on indexes published by the Bureau of Labor Statistics.

Fiscal Year 1995 PPS Hospital Market Basket Forecast—The forecasted value for each price proxy is derived from a complex statistical model that is based on past and current economic information. Since 1979, Data Resources, Inc., (DRI) has been under contract to the Health Care Financing Administration (HCFA) to forecast changes in the hospital market basket. HCFA uses these forecasts

to update the PPS payment rates. ProPAC has also used them in making its annual update recommendation.

DRI updates its PPS market basket forecasts every three months. ProPAC uses the most recently available forecast in making its update recommendation. The market basket forecast included in this report was prepared in December 1993. This forecast indicates that the fiscal year 1995 increase in HCFA's PPS hospital market basket index will be 3.7 percent.

Adjustment for Difference Between HCFA and ProPAC Market Baskets—In 1989 and 1990, the Commission recommended changing certain aspects of the PPS market basket. These recommendations focused on how changes in employee wages and benefits should be measured, dealing specifically with market basket wage and benefit proxies.

HCFA accepted many of the Commission's recommendations concerning the hospital market basket when it was rebased in 1990. However, HCFA did not adopt ProPAC's position on changes in the way that hospital industry wages and benefits are measured and treated in the market basket.

ProPAC's version of the market basket accords greater weight to the internal hospital industry wage proxy. The net effect is that, whereas internal wages make up only about 30 percent of the wage portion of the HCFA market basket, they constitute 50 percent in the ProPAC version. Further, the Commission believes the proxies HCFA uses generally understate how changes in professional and technical workers' wages affect the overall change in hospital input prices.

Because of these differences, the index based on ProPAC's version of the market basket generally differs from the one based on HCFA's version. However, the fiscal year 1995 forecasted increase in ProPAC's market basket index is 3.7 percent, the same as for HCFA's version. To recognize the conceptual difference between HCFA's and ProPAC's market baskets, the Commission has included an adjustment of zero percentage points in its recommendation for fiscal year 1995.

Correction for Fiscal Year 1993 Forecast Error—There may be substantial discrepancies

Table A-1. Comparison of Increases in Hospital Market Basket, PPS Updates, and PPS Payments Per Case, Fiscal Years 1984-1994 (In Percent)

Fiscal Year	Increase in Hospital Market Basket ^a	PPS Update			Increase in PPS Payments Per Case ^c
		ProPAC Recommendation ^b	HCFA Recommendation	Actual Update	
1984	4.9%	--	4.7%	4.7%	18.5%
1985	4.0	--	4.5	4.5	10.5
1986	4.3	1.5%	0.0	0.5	3.1
1987	3.7	1.7	0.5	1.2	5.3
1988	4.7	2.3	0.8	1.5	5.8
Large urban ^d		2.2	0.8	1.5	
Other urban ^e		2.2	0.8	1.0	
Rural		3.0	0.8	3.0	
1989	5.4	4.2	2.7	3.3	6.5
Large urban		4.1	2.8	3.4	
Other urban		4.1	2.3	2.9	
Rural		4.9	3.3	3.9	
1990	5.5	4.1	4.0	4.7 ^f	5.3
Large urban		4.2	4.0	4.4 ^f	
Other urban		3.7	4.0	3.7 ^f	
Rural		4.8	4.0	8.4 ^f	
1991	5.2	4.7	3.7	3.4	5.5
Large urban		4.3	3.5	3.2	
Other urban		4.3	3.5	3.2	
Rural		6.8	5.2	4.5	
1992	4.4	3.0	3.0	3.0	4.9
Large urban		2.8	2.8	2.8	
Other urban		2.8	2.8	2.8	
Rural		3.8	3.8	3.8	
1993	4.1	2.8	2.7	2.7	3.7
Large urban		2.7	2.6	2.6	
Other urban		2.7	2.6	2.6	
Rural		3.7	3.6	3.6	
1994	4.3	3.6	2.6 ^g	2.0	2.9
Large urban		3.4	2.4 ^g	1.8	
Other urban		3.4	2.4 ^g	1.8	
Rural		4.9	3.5 ^g	3.3	

^a Based on data available when final PPS rule was issued.

^b Based on ProPAC's annual *Report and Recommendations to the Congress* and market basket forecast when final PPS rule was issued.

^c Increases for 1984 through 1991 based on data from Medicare Cost Reports, which correspond to hospital cost reporting periods, rather than Federal fiscal years. Increases for 1992 through 1994 based on PPS update and estimated case-mix index increase.

^d Large urban = metropolitan areas with populations of one million or more.

^e Other urban = metropolitan areas with populations of less than one million.

^f Actual updates for fiscal year 1990 adjusted to reflect 1.22 percent across-the-board reduction in DRG weights.

^g Annual update based on HCFA's recommendation that rates be frozen at 1993 level through January 1, 1994.

SOURCE: ProPAC.

between the forecasted increase in the market basket index and its actual value in any given year. That is because for each year, the PPS rates are updated based on data available before the year actually begins. Changes in world events (such as the Gulf War in 1991), national economic conditions (such as a sustained recession), or even sector-specific behavior (such as a hospital nursing shortage) may result in unanticipated price fluctuations that can substantially affect the hospital market basket.

The Commission historically has examined past forecast errors in determining its PPS update recommendations. Substantial discrepancies between forecasted and actual increases in the market basket index can result in large overpayments or underpayments to hospitals under PPS. For example, the fiscal year 1992 forecast error resulted in an update that was 1.3 percentage points (equivalent to about \$650 million in payments) higher than justified by the increase in the prices of the goods and services that hospitals use. Therefore, in the case of such substantial forecast errors (that is, errors of 0.25 percentage points or more), ProPAC includes an adjustment to its recommended PPS update. This adjustment is intended to remove the effects of past forecast errors from the PPS payment base.

The adjustment is determined using data on the actual increase in the market basket index for each year, available at the end of that year. Because of the timing of these data, market basket forecast errors are corrected with a two-year lag. Last year, for example, the Commission reduced its fiscal year 1994 update recommendation by 1.3 percentage points to account for the fiscal year 1992 forecast error.

The forecasted market basket increase used to calculate the update factor for the fiscal year 1993 PPS payment rates was 4.1 percent. The actual increase in the fiscal year 1993 market basket, however, was only 3.0 percent. To account for this discrepancy, the Commission's 1995 update recommendation includes a market basket forecast error correction factor of -1.1 percentage points.

The largest contributor to the fiscal year 1993 forecast error was wage growth that was lower than forecasted, accounting for slightly less than half the error. In particular, this was true for wages paid to professional and technical workers, hospital

workers, and service workers. Lower-than-expected increases in the cost of pharmaceuticals, food, and chemical products each contributed about 0.1 percentage point to the error.

Scientific and Technological Advances

The Commission believes Medicare payment policy should have a neutral effect on technological advancement. That is, payment levels should not inhibit the development or diffusion of new technology applications or result in their inappropriate adoption. Toward this end, in its annual payment update recommendations, the Commission includes an allowance for scientific and technological advances. This allowance is a future-oriented policy statement intended to support appropriate technology applications that improve quality of care for Medicare beneficiaries. Each year the Commission examines the effect of scientific and technological advances on PPS operating costs, PPS capital costs, PPS-excluded facilities' costs, and dialysis facilities' costs under the composite rate. Four S&TA estimates are developed from these analyses. This discussion details ProPAC's approach for the fiscal year 1995 estimates and presents the results for the operating S&TA estimate for fiscal year 1995.

For the fiscal year 1995 update recommendations, ProPAC reexamined its approach to estimating costs attributable to S&TA, focusing on the scope of the S&TA allowance and the basic methodology, including its validity.

Scope—The scope of ProPAC's S&TA estimates includes emerging, quality-enhancing, cost-increasing uses of technologies. Emerging refers to a new application, or use, of a technology. Incremental costs can occur from either the introduction of a new technology or a new application of an existing one.

Scientific and technological advances are often adopted by hospitals to improve the quality and effectiveness of services. The Commission believes Medicare should support appropriate technology applications that are quality-enhancing for its beneficiaries. Although new technologies may promise to improve quality, it is the appropriate use of a technology in an indicated clinical situation that enhances quality of care. The S&TA estimates include only those uses of a technology that are expected to have a quality-enhancing effect.

The S&TA estimate reflects the overall incremental cost-increasing effect of technology applications. To make this technology-specific assessment feasible, ProPAC's approach identifies the technologies that are expected to contribute most to increases in per case facility costs. After a technology is identified, the estimation nets the cost-increasing and any cost-decreasing effects for that given technology. The aggregate effect of cost-decreasing technologies is implicitly reflected in the productivity adjustment.

ProPAC's methodology incorporates these considerations into the four criteria used for identifying technologies. First, technologies were included only if they were thought to have a substantial cost-increasing effect on Medicare operating costs. Second, only technologies that were expected to be at least 5 percent diffused in the Medicare population were included. In other words, it was assumed that, of the Medicare beneficiaries who were potential candidates for treatment, at least 5 percent would receive it in fiscal year 1995. Conversely, it was required that not more than 75 percent of those beneficiaries would be expected to receive the treatment in fiscal year 1995. Finally, each technology had to be considered safe and effective, as indicated by approval from the Food and Drug Administration or other relevant agency, or—when appropriate—through general acceptance by the scientific community.

Methodology—The Commission uses a technology-specific methodology in which estimates are made of the incremental operating costs per case and the number of Medicare cases expected for each selected technology. The total incremental cost estimates for each selected technology are then summed to an aggregate cost amount. The S&TA estimate is expressed in terms of this amount as a percentage of the total Medicare operating payments projected for that year.

In the past year, ProPAC has clarified the intent and scope of the S&TA allowance and the assumptions and parameters for estimation. ProPAC's contractor for this project, Abt Associates, Inc., used numerous avenues to identify potential technologies for preliminary evaluation. After identification of an application, several sources of expert information regarding each technology were obtained, providing a database for comparison.

The validity of the S&TA estimates is strengthened by the addition of a results review process, undertaken by an interdisciplinary panel (one panel for the PPS operating and capital S&TA estimates, one for the PPS-excluded estimate, and one for the dialysis estimate). The panels included physicians from relevant specialties, pharmacists, suppliers, administrators, and other health industry representatives. The panel discussions aimed at achieving consensus regarding each technology in terms of its quality-enhancing uses, expected Medicare volume, levels of effectiveness, and comparison with alternative technologies.

Results—The final list of technologies included in the estimation of the fiscal year 1995 S&TA allowance for operating costs comprises 17 applications (see Table A-2). The range for the S&TA estimate is 0.1 percent to 0.8 percent, with a best estimate of 0.3 percent.

Decision—For fiscal year 1995, the Commission believes that 0.3 percent is an appropriate level for the operating S&TA allowance.

Productivity

The productivity adjustment is intended to provide a financial incentive to encourage continued improvement in hospital productivity, either from the more efficient use of existing inputs or from the adoption of cost-decreasing technologies. The productivity adjustment, together with the S&TA allowance, reflects changes over time in the quantity and mix of resources used during a hospital stay.

Each year, ProPAC sets a target for the amount of productivity improvement that it believes is reasonable to expect hospitals to attain in the coming year. A negative adjustment is then made to ProPAC's PPS operating and capital update recommendations equal to half the expected increase. This reflects the Commission's determination that the Medicare program and the hospital industry should share in the savings resulting from productivity gains. To aid in setting an appropriate target for productivity improvement, ProPAC conducts an ongoing analysis of the trend in hospital productivity.

This section summarizes the methodology, limitations, and results of ProPAC's analysis of

Table A-2. Estimated Impact of Emerging Technologies on Medicare Operating Costs for PPS Hospitals, Fiscal Year 1995 (In Millions)

Technology	Estimated Amount (In Millions)		
	Low	High	Best
Electrophysiologic studies	\$15.1	\$215.6	\$78.2
Decision support information systems	10.3	51.3	31.2
Implantable coronary stents	10.7	69.1	28.1
Thrombolytic therapy	4.5	66.5	21.6
Implantable peripheral vascular stents	2.7	63.8	16.6
Implantable cardioverter defibrillators	5.6	24.4	12.9
Pacemaker advances	7.0	11.5	9.3
Magnetic resonance imaging	4.4	10.4	7.2
Pharmacy information systems	2.8	11.0	6.8
Single photon emission computerized tomography	1.9	11.0	4.6
Radiology information systems	1.1	8.6	4.2
Radionuclides/monoclonal antibodies	1.3	9.5	3.5
Autologous blood transfusion	1.2	5.4	3.0
Transesophageal echocardiography	1.6	4.0	2.6
Biliary stents	0.2	2.5	1.1
Ondansetron	0.2	4.6	0.7
Total	70.7	569.3	231.4

Note: Columns may not sum to total due to rounding.

SOURCE: Abt Associates, Inc., under contract to ProPAC.

productivity change over the 1983 to 1992 period, as well as the Commission's decision regarding the operating and capital productivity adjustments for fiscal year 1995.

Methodology—Productivity is defined as the ratio of outputs to inputs. Increased productivity implies that the hospital is either producing more output with the same resources, or the same output with fewer resources.

ProPAC traditionally has focused on labor inputs because capital payments were left out of the Medicare diagnosis-related group (DRG) payments, and labor was responsible for about half of all hospital expenses. However, a prospective payment system has now been introduced for capital. When fully implemented, it will remove any disincentives for hospitals to substitute freely among labor, supply and service, and capital inputs. Consequently, the Commission has developed a more comprehensive measure of productivity reflecting both capital and supply and service inputs, along with labor. This total factor productivity measure is applicable to both the operating and capital update factors.

ProPAC's labor input measure is the number of full-time equivalent (FTE) employees, with an

adjustment for occupation-mix change in the hospital work force. This adjustment uses average wage level weights, obtained primarily from Bureau of Labor Statistics surveys, to translate shifts among personnel classes into FTE changes.

The supply and service measure is based on the overall cost of these inputs, with an adjustment to remove the effects of annual price increases. The price changes are represented by a composite of the index values for all non-labor and non-capital components of HCFA's PPS market basket.

Capital inputs are measured by building and equipment assets, with a similar adjustment to remove the effects of price increases. Capital prices are represented by the Boeckh building cost index and the Marshall and Swift hospital equipment index. Hospital assets are age-adjusted, which is critical because the annual change in capital stock is driven primarily by new purchases. If the amount of these purchases measured in current dollars were divided by net plant assets bought up to 40 years earlier, the percentage change would be significantly overstated.

The Commission defines hospital output as the number of admissions, with adjustments for real case-mix change and outpatient activity. The data

used for the case-mix change adjustment are ProPAC estimates, as discussed in the next subsection. The resulting measure of FTEs, supply and service inputs, and capital inputs per adjusted admission (which the Commission calls aggregate total factor productivity) implicitly assumes that hospital services are inputs contributing to the quality of the final output, a completed admission.

ProPAC examines aggregate productivity in more detail by separating it into two components. The first, which is referred to as service-level or intermediate productivity, provides information regarding the efficiency of hospitals in producing intermediate services (laboratory tests, surgeries, days of nursing care, and so forth). The second, case-mix constant intensity of services, examines changes in the number and type of services that hospitals produce, after controlling for changes in the complexity of patients treated. These service increases can be reflected in longer lengths of stay, greater use of existing technology, or the adoption of expensive new technology to provide service add-ons or substitute for less complex procedures.

For the service-level productivity and intensity of service measures, the relative value of the various service units hospitals produce was measured by their posted charges, with an adjustment to remove the effects of year-to-year price inflation. Hospital price increases are represented by the hospitals and related services component of the consumer price index (CPI). All other data used for the study, including the number of hospital admissions, FTEs, supply and service costs, charges, depreciation expenses, and assets, were obtained from the American Hospital Association (AHA) Annual Survey of Hospitals.

Limitations—The Commission's productivity measurements are subject to certain limitations. The Commission has taken these limitations into account in assessing the industry productivity trend and forming expectations for future productivity performance.

A significant problem is that it is impossible to account fully for quality enhancements in the hospital product. This problem is not unique to ProPAC's analysis, however. Virtually all productivity analyses suffer to some degree from the inability to measure quality improvements.

A constraint on the accuracy of the FTE data is that the survey reports FTEs employed on the last day of the year. This is not necessarily an accurate reflection of the labor hours used throughout the year, although the measure is believed to track reasonably consistently from year to year.

The measurement of the average age of capital is approximate because it relies on the methods for computing depreciation used by individual hospitals, which are not always consistent. In addition, the process of inflating the value of capital from the average purchase date to current price levels assumes a smooth trend in capital prices over time. The actual price changes, as represented by ProPAC's two indexes, have been reasonably stable but not a straight-line trend.

Using the Commission's real case-mix change estimates to adjust admissions requires that Medicare data be extrapolated to the entire population. No information is available to test the validity of the assumption that case-mix change has been comparable for the over-65 and under-65 populations, but the data are again believed to be adequate for national-level trend analysis.

The accuracy of ProPAC's intermediate productivity and intensity of services measures depend on two factors. The first is how closely hospital charges reflect the costs of individual service units. Systematic differences in hospitals' service mark-ups may create a bias, although the effect of this bias is minimized by the fact that the analysis addresses only the change in hospital output.

The second factor is how well the hospital component of the CPI reflects hospital price increases. A favorable feature of the hospital CPI for this analysis is that it is based on the same data source as total charges: hospitals' posted prices. In addition, the index uses a random selection technique to ensure representativeness across a broad array of hospital services. Finally, the weights used for aggregating the price increases of individual service units are updated regularly.

Results—Aggregate total factor productivity has risen only once since ProPAC's measurement began in 1983 (see Table A-3). This was a 0.8 percent improvement in 1984, at least partially in response to the introduction of PPS. But after

Table A-3. Change in Aggregate Total Factor Productivity and Its Components, 1984-1992 (In Percent)

Year	Service-Level Productivity ^a	Case-Mix Constant Intensity of Services	Aggregate Productivity ^b
1984	-2.0%	-2.6%	0.8%
1985	-4.0	-2.2	-1.5
1986	-1.1	2.4	-3.5
1987	-0.9	2.5	-3.5
1988	0.7	1.6	-0.9
1989	0.3	0.8	-0.6
1990	-0.4	0.0	-0.5
1991	-1.1	0.6	-1.8
1992	-0.6	1.7	-2.4

Note: Change in service-level productivity minus change in intensity of services equals change in aggregate productivity, although this relationship may not be exact due to rounding.

^a Service-level productivity is defined as service output per unit of labor, supply and service, and capital inputs.

^b Aggregate productivity is defined as admissions per unit of labor, supply and service, and capital inputs, with admissions adjusted for real case-mix change and outpatient activity.

SOURCE: ProPAC analysis using the American Hospital Association Annual Survey of Hospitals and other sources.

significant productivity declines over the next three years, the drop of less than 1 percent in 1989 and again in 1990 suggested a trend of stabilizing productivity. Unfortunately, the 1991 result—a decline of 1.8 percent—signaled an end to this trend, and the 1992 performance—a negative 2.4 percent—was even worse.

As part of the initial response to prospective payment, hospitals reduced their intensity of services significantly, with most of the reduction taking the form of a decline in length of stay. Intensity growth resumed after the first two years of PPS, however, rising by about 2.5 percent in both 1986 and 1987. Since then, the industry has succeeded in steadily scaling back the size of its intensity increases, to 1.6 percent in 1988, 0.8 percent in 1989, and finally zero in 1990. The 1992 result, however, deviated from this trend, showing an increase of 1.7 percent. This intensity increase, combined with a modest decline in service-level productivity of 0.6 percent, produced an aggregate drop in productivity of 2.4 percent.

The number of FTEs employed by PPS hospitals has been rising by about 3 percent a year, but this increase moderated to 2.4 percent in 1992 (see Table A-4). By far the largest increase in 1992, however, occurred in supplies and services, where

the real increase in inputs exceeded 9 percent. Since contract labor is included within this category, the overall increase in labor use (including both employment and contract status) may have been larger than implied by the FTE count alone. There was also a rise of almost 6 percent in the use of capital inputs in 1992.

Preliminary data for 1993 suggest that hospital per case cost growth has moderated considerably, in response to lower general price inflation, private sector cost-containment pressure, and anticipation of health reform. The 1993 increase is estimated at 5.5 percent, compared with 8.1 percent in 1992 and around 9 percent in each of the six years before that.¹ While it is not yet possible to measure total factor productivity for 1993, there is reason to expect that productivity performance has also improved substantially.

Decision—ProPAC believes hospitals should be expected to achieve at least modest productivity improvements each year, consistent with the incentives provided by PPS. Moreover, half the savings from the expected productivity gain should be used to offset the cost impact of technological advances and real case-mix change, with the other half retained by the industry.

The productivity growth trends for other service-oriented industries influenced the

Table A-4. Change in the Use of Hospital Inputs, 1984-1992 (In Percent)

Year	Labor Inputs ^a	Supply and Services Inputs ^b	Capital Inputs ^c
1984	-1.8%	1.8%	3.3%
1985	-0.5	4.0	0.4
1986	2.1	7.7	0.8
1987	3.0	7.4	-0.5
1988	2.7	6.1	-0.3
1989	3.0	3.4	-0.8
1990	3.2	5.7	2.1
1991	3.5	7.4	4.6
1992	2.4	9.2	5.6

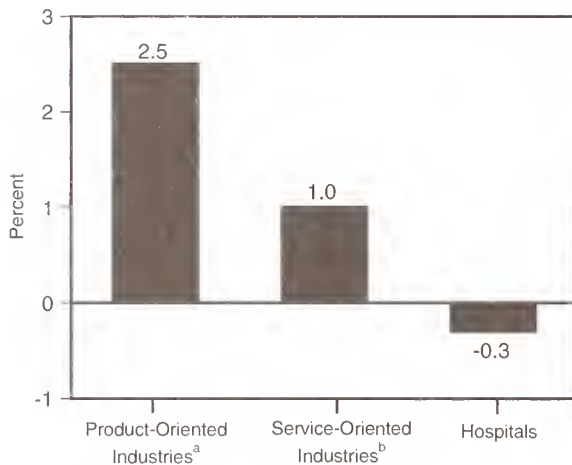
^a Measured as change in occupation-adjusted full-time equivalent employees.

^b Measured as the increase in supply and service costs adjusted for inflation in prices of these items.

^c Measured as the age-adjusted change in building and equipment assets, adjusted for inflation in prices of building construction and hospital equipment.

SOURCE: ProPAC analysis using the American Hospital Association Annual Survey of Hospitals and various price indexes.

Figure A-1. Change in Labor Productivity by Industry, 1980-1990 (In Percent)



^a Includes 89 mining and manufacturing industries, weighted by employment.

^b Includes 25 transportation, utility, retail trade, and service industries plus the Federal government, weighted by employment.

SOURCE: ProPAC for hospital measurement; ProPAC analysis of data from the Bureau of Labor Statistics for other industries.

Commission's decision. From 1980 to 1990, labor productivity rose by 1.0 percent per year in a sample of 25 service industries plus the Federal government (see Figure A-1). This compares with a decline of 0.3 percent annually in hospitals and a gain of 2.5 percent per year in 89 product-oriented industries. While a total factor productivity measure is not available for all these industries, data for a sample of industries suggest that total factor productivity growth is about half labor productivity growth. But at the same time, productivity growth in the general economy is estimated to have been about 50 percent higher in 1992 and 1993 than it was during the 1980s. And as mentioned above, productivity growth is also believed to have been markedly higher in hospitals in 1993.

On the basis of these considerations, the Commission decided it is reasonable to expect hospitals to increase productivity by 1.4 percent in fiscal year 1995. Accordingly, the adjustment for productivity was set at -0.7 percent, compared with the -0.5 percent factor recommended for fiscal year 1994. This decision applies to

both the operating and capital productivity updates.

Adjustment for Case-Mix Change

The Medicare case-mix index (CMI) is the average DRG weight for all cases paid under PPS. Because the DRG weight determines the PPS payment for each case, an increase in the CMI results in an equal percentage increase in hospital payments. The CMI may rise because of real case-mix change or because of upcoding. Real case-mix change is a change in patient resource requirements related to the mix of patients or their treatment. For example, a change in the average severity of illness of patients who are admitted to hospitals or the types of services that are provided on an inpatient basis are real case-mix changes. Upcoding is a change in medical record documentation or coding practices that results in assigning cases to higher-weighted DRGs without increased patient resource requirements.

The Commission believes hospitals should be compensated for real case-mix change, but not for upcoding. ProPAC's update recommendation reflects this by adjusting for the two components of real case-mix change. First is an adjustment for that portion of CMI change due to increases in resource requirements resulting from greater patient complexity across DRGs, or across-DRG case-mix change. Second is an adjustment to compensate hospitals for greater patient complexity within DRGs, or within-DRG case-complexity change.

For several years, the Commission has been working to develop better methods to measure the components of case-mix change so that the update factor can be appropriately calculated. This has been difficult because it is not easy to distinguish real changes in patient mix from changes in coding. This task is further complicated because the study previously used to estimate the effect of upcoding was discontinued in 1990 due to data limitations. Therefore, the case-mix change portion of the update recommendation is largely based on the analysis of past data coupled with the Commission's judgment.

In October 1993, ProPAC staff convened a panel of experts on the Medicare case-mix index and the components of case-complexity change to reexamine the Commission's approach to estimating

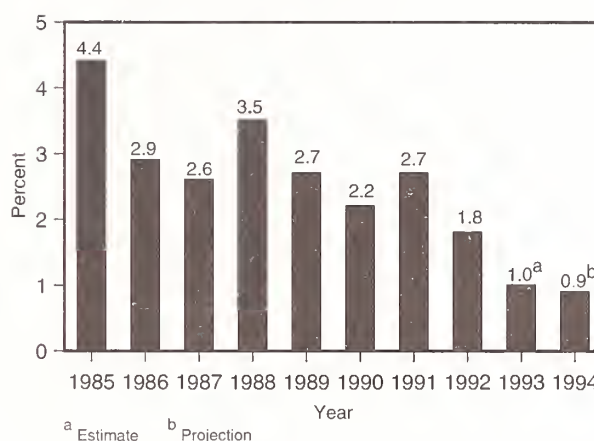
changes in case mix, and how best to reflect changes in case complexity in the PPS update.² The panel agreed that the underlying long-term trend in real case-mix change will approach some constant level. However, modifications to medical record documentation and coding practices affect the ability to determine this level. Additionally, facilities respond to various factors when documenting medical records. For example, some payers require particular documentation to justify certain procedures. Other facilities may try to minimize the appearance of complication rates to compete for managed care contracts. All these factors could affect the Medicare CMI, but it is unclear by how much and in what direction. Furthermore, the panel believed within-DRG case complexity change will remain an issue. However, as the DRGs become more refined, within-DRG case complexity may become less important.

The Commission's case-mix change adjustment consists of three parts, which together acknowledge the effects of real case-mix change while removing the effects of upcoding:

- An estimate of total CMI change in the year prior to the update (for example, fiscal year 1994 for the fiscal year 1995 update) is subtracted from the update factor to remove the effects of both real case-mix change and upcoding.
- A positive adjustment is then added back for the portion of the CMI increase that reflects real across-DRG case-mix change in the year prior to the update.
- Another positive adjustment is made for real case-mix change not captured by changes in the CMI—within-DRG case-complexity change.

Total DRG Case-Mix Index Change—Total CMI change was 4.4 percent in fiscal year 1985. Since then, the change in the CMI has declined from year to year, except for 1988 and 1991 (see Figure A-2). In fiscal year 1988, CMI change jumped to 3.5 percent, up from 2.6 percent in the previous year. This increase was due primarily to two modifications in the DRG Grouper (the rules for assigning cases to DRGs). Age was eliminated as a DRG classification criterion, and two heavily weighted DRGs were created that included

Figure A-2. Annual Medicare Case-Mix Index Change, 1985-1994 (In Percent)



SOURCE: ProPAC analysis of MedPAR data from the Health Care Financing Administration.

mechanical ventilation and tracheostomy as classification criteria. Both of these revisions gave hospitals incentives to further improve their medical record documentation and coding practices, resulting in a higher CMI.

Additional modifications to the DRG Grouper, providing further opportunities for upcoding, resulted in a rise in the rate of CMI change in fiscal year 1991 to 2.7 percent, compared with 2.2 percent in the previous year. Thirteen new DRGs were added: Two restructured the way diseases and disorders of the circulatory system were classified for payment, and the other 11 affected the assignment of bone marrow transplants, liver transplants, tracheostomies, multiple significant traumas, and human immunodeficiency virus infections.

In 1992, HCFA reclassified certain acute myocardial infarction cases and created new DRGs for cases involving major joint and limb reattachments of the upper extremities and chemotherapy for leukemia patients. In addition, HCFA expanded the number of fields for reporting diagnoses (from five to nine) and procedures (from three to six) on the Medicare bill. These revisions, however, were not enough to alter the downward trend in CMI change. The change in CMI for 1992 was 1.8 percent.

In 1993, several relatively minor changes were made to the Grouper. An expansion was made to

the original list of mouth, larynx, and pharynx disorders for cases in which a tracheostomy is performed. The surgical hierarchy for Diseases and Disorders of the Ear, Nose, Mouth, and Throat and for Diseases and Disorders of the Skin, Subcutaneous Tissue, and Breast was modified to better ensure that cases involving multiple surgical procedures are assigned to the DRG associated with the most resource-intensive surgical class. Several alterations were made to the coding system. Specifically, new diagnosis codes were created for diabetes and anaphylactic shock.

Despite these revisions to the Grouper, ProPAC estimates (based partly on preliminary data from HCFA) that the CMI for fiscal year 1993 will be 1.0 percent higher than in fiscal year 1992. This reflects a continuation of the trend toward a lower level of CMI change in the long run. On the basis of recent trends and the lack of any major modifications in the Grouper for 1994, ProPAC expects a continued, although slight, decline in the rate of CMI change. The Commission's estimate of total CMI change in fiscal year 1994 is 0.9 percent.

Real Across-DRG Case-Mix Change—Over the past few years, ProPAC's estimates of real CMI change have reflected empirical evidence provided by a major study conducted in 1988 and 1989 by RAND. Sponsored by HCFA with support from ProPAC, the RAND study involved reabstracting medical records and comparing the originally coded data with the recoded data. The methodology allowed for the apportionment of CMI change into real and upcoding components.

The RAND study of real across-DRG case-mix change from fiscal year 1986 to 1987 concluded that about two-thirds of the 2.4 percent increase in the CMI for its sample of cases could be attributed to real case-mix change. The study also concluded that, from fiscal year 1987 to 1988, real case-mix change accounted for about half of the 3.0 percent increase in the CMI. Although the observed increases in the total CMI change were quite different in those two years, the estimates of real case-mix change were similar, 1.6 percent and 1.5 percent, respectively.

The Commission's judgments in recent years have been consistent with the RAND findings. From 1989 through 1993, the Commission adjusted

its update recommendation by 1.5, 1.3, 1.5, and 1.4 percentage points, respectively, to reflect real across-DRG case-mix change. The estimate for 1994 should be significantly lower, given the small increase in the total CMI estimated for that year. ProPAC's estimate for real across-DRG case-mix change in fiscal year 1994 is 0.7 percentage points.

Within-DRG Case-Complexity Change—For the past several years, the Commission's estimates of within-DRG case-complexity change have been based on an analysis by Systemetrics, Inc. This analysis is conducted using a database that consists of all Medicare discharges from a 10 percent stratified random sample of PPS hospitals in each year. Each discharge is then classified within the DRG based on the principal disease, the stage of that disease (determined using Systemetrics' Disease Staging system), and the number of unrelated comorbidities. Disease Staging is a clinically based measure of severity that uses objective medical criteria to assess severity on the basis of etiology and stage of disease progression. This approach permits measuring changes in the distribution of patients within DRGs and the effect on anticipated costliness.

Within-DRG case-complexity may increase because patients within the DRGs have a more severe mix of principal diseases, enter the hospital at a more advanced stage of illness, or have more comorbidities. These factors may reflect real changes in severity or simply changes due to upcoding.

Within-DRG case-complexity change has decreased over time. There are several reasons for this trend. DRG refinements may have reduced the variation in patient complexity within DRGs. In addition, the shift of less complex cases to the outpatient setting has slowed, reducing increases in the complexity of hospitalized patients.

Systemetrics' estimate of within-DRG case complexity change in 1991, however, was somewhat higher than in 1990, 0.7 percent. The estimate for 1992 was 1.0 percent. It is not clear why case-complexity change increased in 1991. The increase in 1992 may be due to a new edition of Disease Staging that is more sensitive to coding changes. Therefore, a substantial portion of this estimate may be the result of upcoding. This is consistent

with the points raised by ProPAC's expert panel, which indicated that coding practices may be changing in ways that are not necessarily consistent with maximizing the Medicare CMI, but that might

affect other diagnosis-based grouping algorithms. ProPAC expects less within-DRG case-complexity change in 1993 and 1994, and its estimate is 0.2 percentage points for fiscal year 1994.

FISCAL YEAR 1995 PPS CAPITAL UPDATE

Medicare's payment for hospital inpatient capital costs is based on prospectively determined per case rates. During a 10-year transition from fiscal year 1992 through 2001, payments will reflect both hospital-specific capital costs and a single Federal capital payment rate.

A facility's hospital-specific payment rate equals total allowable base-year inpatient capital costs (primarily interest and depreciation, plus other capital-related costs such as insurance and certain lease and rental payments) divided by the number of Medicare discharges. This number is then adjusted for case mix and transfers and updated to the current year. The base year is the most recent cost reporting period ending on or before December 31, 1990. Base-year costs are increased to include costs associated with assets legally obligated by December 31, 1990, that will be in use by September 30, 1994. The Federal rate is the 1989 nationwide average Medicare capital cost per discharge updated to the current year.

During the transition, hospitals are paid according to either a fully prospective method or a "hold-harmless" method. Hospitals with a 1992 hospital-specific rate below the Federal average cost per case are paid under the fully prospective method, with rates equal to a blend of their hospital-specific rate and the Federal rate. The blend will be 60 percent hospital-specific and 40 percent Federal in fiscal year 1995, with the Federal weight continuing to increase 10 percentage points each year until fiscal year 2001, when it will be 100 percent.

Hospitals with a 1992 hospital-specific rate above the Federal average cost per case are paid under the hold-harmless method. Payment is 85 percent of actual Medicare reasonable costs for old capital (100 percent for sole community hospitals) plus a hospital-specific payment for new capital, or 100 percent of the Federal rate, whichever is greater. Old capital costs are generally those associated with assets obligated by the end of 1990 and in use for patient care by September 30, 1994. The payment for new capital is the Federal rate times the hospital's ratio of new to total capital costs. In all cases, payments are

adjusted for the DRG weight for each case and for geographic cost differences, teaching intensity, disproportionate share status, and outlier costs.

Update Framework

As with payment for operating expenses, payment rates for capital will be updated annually to recognize changes in prices and other considerations. Beginning in fiscal year 1996, the Secretary will use an update framework for such adjustments. Until then, historical cost increases will be used to update the Federal rate, and total payments will be adjusted so that they are equal to 90 percent of estimated Medicare-allowed capital costs.

The Commission reviewed alternative approaches and, in its March 1993 *Report and Recommendations to the Congress*, recommended using an update framework to adjust the Federal capital payment rate beginning in fiscal year 1994. (The budget neutrality adjustment would still apply through fiscal year 1995.) This update framework would be similar to that used for operating payments.

ProPAC's update framework includes a capital market basket component that measures the one-year change in a fixed basket of capital goods purchased by hospitals. As with the operating update, a forecast error correction factor adjusts payment rates so that the effects of past errors are not perpetuated. A financing policy adjustment accounts for the effects of substantial deviations from long-run trends in interest rates on hospital capital costs. Similar to the operating update, this framework also includes adjustments for scientific and technological advances, productivity, and case-mix change. The following discussion explains components of the capital framework.

Capital Market Basket Index

The Commission's proposed market basket reflects projected increases in the prices of capital assets purchased by hospitals. This market basket measures the one-year change in the price of a fixed mix of capital goods. It includes three components: building and fixed equipment, movable equipment, and other capital-related costs. These are weighted by estimates of costs for each type of capital. These capital weights reflect hospitals' patterns of capital acquisition.

ProPAC believes the capital update should be for future capital purchases. The recommended market basket and related adjustments are designed to provide Medicare capital payments reflective of future capital replacement prices. They would provide updates appropriate to maintain a level of hospital capital stock adequate to provide effective care efficiently to Medicare beneficiaries.

Choice of Price Proxies—Research conducted for the Commission examined the price proxies proposed by HCFA and several alternatives. This research suggested that two indexes are superior to HCFA's because of the quality of the data and their relevance to the hospital industry. The Boeckh building cost index subindex for apartment and office building construction is a strong measure of the prices of the sorts of buildings and fixed equipment hospitals purchase. The Marshall and Swift hospital equipment index is a measure of movable equipment prices specifically designed for hospitals. The Commission agrees with HCFA that the CPI for residential rent is the best currently available measure of other capital-related costs, such as insurance.

The market basket is oriented toward long-term maintenance of the desired capital base of the industry. Market basket changes would fully reflect changes in the cost of asset replacement. They would apply to the full capital payment base. Although in any year aggregate Medicare payment might equal, exceed, or be less than hospital capital expenses, over the long run the use of this market basket would provide adequate equity to fund an appropriate stock of capital.

Structure of Market Basket—The three price proxies would be included in the market basket with weights that reflect annual purchases of assets (in the case of the two forms of capital) and the share in relevant capital expenses (in the case of other capital-related costs). In the absence of accurate and current information on actual capital purchases, the Commission believes shares of depreciation expense, adjusted for other capital-related costs, provide the best available weights. Based on 1987 data, this suggests weights of 0.454 for the measure of building and fixed equipment prices, 0.514 for the measure of movable equipment, and 0.032 for the measure of other capital-related costs. ProPAC intends to continue research to identify more accurate measures of expected capital purchases.

Fiscal Year 1995 Capital Market Basket Forecast—As of January 1994, the projected increase in ProPAC's market basket for fiscal year 1995 is 3.4 percent. For fiscal year 1995, the Commission is using DRI forecasts of the Boeckh and Marshall and Swift indexes and the CPI for residential rent (all prepared by DRI under contract to HCFA). It combines them using the weights described above.

Forecast Error Correction Factor—The Commission bases its forecast of increases in the capital market basket on the best data available at the time of its recommendations. Unforeseen economic developments may lead to substantial discrepancies between the forecasted increase in the capital market basket and actual increases, leading to potentially significant underpayment or overpayment to hospitals. Inclusion of a forecast error correction in the update framework removes the effects of such forecast errors from the capital payment base. Because 1995 would be the first year in which a capital update framework would be used, there is no correction to make this year.

Financing Policy Adjustment

In the Commission's view, including measures of interest expense in a capital market basket makes the index unnecessarily volatile. Increases in interest rates encourage hospitals to defer investment or substitute financing by equity in place of debt, while declines in interest rates encourage facilities to refinance existing debt. Neither of these behavioral responses would be reflected in a market basket that included interest expenses.

ProPAC's capital update framework instead includes a financing policy adjustment to account for the effects of substantial changes in interest rates on hospital capital costs. It reflects interest rate changes that the Commission believes might otherwise create a disruptive financial burden for hospitals and that facilities could not offset by behavioral changes. Such interest rate spikes occurred in 1980 and 1981 after unusual oil price shocks. The framework also adjusts for changes that would substantially reduce capital costs. It would increase payments to compensate hospitals faced with effects of extreme interest rate increases and allow the Medicare program to share in some of the savings resulting from lower interest rates.

Each year, the Commission assesses probable future patterns of interest rates. If ProPAC judges that interest increases warrant special attention, it may set a financing policy adjustment between zero and the full amount of the change in costs. If the Commission anticipates unusual capital cost savings from declining interest rates, it may set a negative adjustment, allowing the Medicare program to share in some of the savings in capital costs.

Decision—Long-term interest rates are anticipated to remain relatively stable through fiscal year 1995. The Commission does not believe it is appropriate to adjust capital payments for forecasted changes in interest rates at this time.

Scientific and Technological Advances

The Commission includes an allowance for scientific and technological advances in its update framework for capital costs. This allowance is a future-oriented policy statement intended to support appropriate technology applications that improve quality of care for Medicare beneficiaries. Each year the Commission examines the effect of scientific and technological advances on PPS operating costs, PPS capital costs, PPS-excluded facilities' costs, and dialysis facilities' costs under the composite rate. Four S&TA estimates are developed from these analyses. This discussion focuses on the process used to develop the capital S&TA allowance.

Methodology—The methodology ProPAC used to develop the fiscal year 1995 S&TA esti-

mates is described in the section of this appendix entitled, "Fiscal Year 1995 PPS Operating Update."

ProPAC uses the same methodology to develop the S&TA estimates for operating and capital costs. However, the components of the capital S&TA cost estimate differ greatly from those of an operating S&TA. Operating costs are incurred with the use of labor, supplies, and services, and typically are expressed as an annual total expenditure. By contrast, capital costs include the purchase, installation, and financing costs of buildings and equipment, and are incurred when the capital is acquired. At the time of purchase, the hospital commits to a series of payments occurring over several years.

To understand a technology's impact on annual capital costs, information must be collected that is not required for the operating S&TA cost estimate. This information includes the loan's interest rate, the technology's useful life, and what proportion of the capital cost is financed. In ProPAC's methodology, this information is translated into an estimate of expected cash flows during the fiscal year for that technology.

Results—The final list of technologies included in the estimation of the fiscal year 1995 S&TA allowance for capital costs comprises eight applications (see Table A-5). The range for the S&TA estimate is 0.4 percent to 1.7 percent, with a best estimate of 0.9 percent.

Table A-5. Estimated Impact of Emerging Technologies on Medicare Capital Costs for PPS Hospitals, Fiscal Year 1995 (In Millions)

Technology	Estimated Amount (In Millions)		
	Low	High	Best
Decision support information systems	\$16.9	\$66.0	\$41.2
Cardiac catheterization labs	13.4	29.0	17.4
Pharmacy information systems	4.9	15.4	10.2
Radiology information systems	1.9	11.0	6.1
Transesophageal echocardiography	0.5	7.0	2.6
Electrophysiologic studies	0.4	5.6	1.9
Magnetic resonance imaging	0.5	4.7	1.8
Single photon emission computerized tomography	0.2	16.3	0.9
Total	38.8	155.1	82.0

Note: Columns may not sum to total due to rounding.

SOURCE: Abt Associates, Inc., under contract to ProPAC.

ProPAC's findings for fiscal year 1995 indicate that some technologies, such as cardiac catheterization procedures, will have substantial effects on both operating and capital costs. Other technologies, such as thrombolytic therapy, will affect operating costs but not capital costs. However, for fiscal year 1995, all eight technologies studied to develop the capital estimate were found to have significant operating costs and thus were also included in the technology list for the 1995 operating S&TA estimate.

Decision—For fiscal year 1995, the Commission believes 0.9 percent is an appropriate level for the capital S&TA allowance.

Productivity

Following the approach originally adopted for PPS operating updates, the capital productivity adjustment is intended to provide a financial incentive to encourage continued improvement in hospital productivity. Each year, the Commission sets a target for the amount of capital productivity improvement it believes is reasonable for the coming year. To aid in setting an appropriate policy target, ProPAC has developed a measure of total factor productivity.

The Commission considered historical evidence using changes in labor and total factor productivity in the economy as a whole, in service-related industries, and in the hospital industry. ProPAC is using the same measure of total factor productivity used in the operating update in the capital update framework. (This measure is described in the appendix discussion of the operating update.) The Commission recommends a negative 0.7 percentage point adjustment for capital productivity in fiscal year 1995.

Case-Mix Change

Medicare uses the same DRG definitions and relative weights for operating and capital payments. Increases in the Medicare case-mix index, which measures the average DRG weight for all cases paid under PPS, will lead to equal proportional increases in Medicare capital and operating payments. The Commission's adjustment for case-mix change, described in the appendix discussion of the operating update, is thus appropriate for the capital update as well. The Commission recommends a net adjustment of zero percentage points for case-mix change in fiscal year 1995.

FISCAL YEAR 1995 UPDATE FOR PAYMENTS TO DIALYSIS FACILITIES

Since 1983, dialysis facilities have been paid a prospectively set amount per dialysis treatment. This amount, called the composite rate, was developed in 1983 based on a sample of Medicare Cost Reports from 1977 through 1979. It represents the average cost of producing a dialysis treatment, weighted for the proportions of patients that dialyzed in the facility and at home. Hospital-based facilities receive a higher base payment rate than independent facilities.

Unlike payments to PPS hospitals, the composite rate has not been updated annually. Although minor changes were made in 1986 and 1991, the current payment rates are essentially equal to those set in 1983. The base composite rates for independent and hospital-based facilities are \$122 and \$126, respectively.

The Omnibus Budget Reconciliation Act (OBRA) of 1990 requires ProPAC to recommend an annual update to payments to dialysis facilities. In developing its recommendation for fiscal year 1995, the Commission considered two separate but related questions. First, how much should payments increase in 1995 based on the established update framework? Second, are the base payment amounts to which the update applies appropriate?

Update Framework

The Commission uses a formula approach similar to that employed in the update recommendation for PPS hospitals to determine how much the composite rate should increase in the coming fiscal year. It includes a market basket index to reflect input price changes, an allowance for the cost of scientific and technological advances, and a target for productivity improvement. There is no need to account for case-mix change in the update because dialysis payments are not adjusted for case mix.

Market Basket Index—A market basket index measures changes in the cost of producing a good or service due to changes in input prices. It is constructed by defining input components that reflect the full range of goods and services dialysis providers purchase. Each component has a weight that represents its cost share, or proportion of total

expenses. Because data are not available on actual changes in individual prices, the price change for each component is measured by a proxy.

ProPAC's dialysis facility market basket comprises four cost input components: capital, labor, other direct costs, and overhead. In an effort to improve the market basket's ability to measure price changes, the Commission reexamined the feasibility of disaggregating total expenses into the eight cost categories found on the Medicare Cost Report. However, due to deficiencies in the unaudited 1992 cost report data, cost shares varied widely across facilities. Combining the categories yielded more stable weights.

The Commission plans to investigate this issue further using data from HCFA's 1991 cost report audit sample. Unfortunately, the audit results were not available for refining this year's market basket. Therefore, ProPAC will use the final audit results to reassess the appropriateness of the cost components and cost shares for the fiscal year 1996 update recommendation.

ProPAC selected price proxies from the Medicare PPS hospital, home health agency (HHA), and skilled nursing facility (SNF) market baskets to develop a dialysis facility market basket. The combined market basket indicates that input prices will rise by about 4.3 percent between fiscal years 1994 and 1995 for independent and hospital-based facilities.

This approach may overstate actual inflation in the dialysis industry because the rates of increase in the HHA and SNF price proxies generally have been higher than the growth in dialysis facilities' costs. HCFA suggested that price proxies specific to the dialysis industry may be more appropriate. ProPAC did not use dialysis-specific proxies, however, because of the potential for biased results. Many dialysis supply producers and distributors are owned by parent companies that also own dialysis facilities. Dialysis input prices may reflect corporate cost accounting decisions rather than market forces. The industry, therefore, may be able to influence the rate of change in a market basket based on internal proxies. The Commission will continue to explore the feasibility of developing proxies that better reflect price changes in this industry.

Scientific and Technological Advances Allowance—ProPAC's S&TA allowance is intended to encourage dialysis facilities to adopt new technologies that improve the quality of care even though they increase costs. It represents the Commission's judgment about the level of financing required for these advances in the coming fiscal year. To arrive at an informed judgment on the appropriate amount of the allowance, ProPAC annually examines the incremental impact that new technology applications will have on the cost per dialysis treatment for the coming fiscal year. (See the appendix section entitled "Fiscal Year 1995 PPS Operating Update" for a more detailed discussion of ProPAC's methodology.)

A broad list of technologies was identified and then narrowed to include only those that are considered to be safe and effective, at least 5 percent but no more than 75 percent diffused among Medicare dialysis patients, and have a significant effect on Medicare costs. The technologies' future impact on the combined operating and capital costs per dialysis treatment was approximated based on the expected cost and use of the technologies. A panel of experts reviewed the technologies and cost estimates for accuracy and validity.

The final S&TA estimate included seven quality-enhancing, cost-increasing applications (see Table

A-6). The total incremental impact of these technologies on the operating and capital costs of providing dialysis services for fiscal year 1995 is estimated to be between \$6.7 million and \$43.3 million, with a best estimate of \$26.9 million. The best estimate is about 0.7 percent of total projected composite rate payments for fiscal year 1995. Therefore, the Commission recommends a 0.7 percent S&TA allowance.

Productivity Improvement Adjustment—The productivity adjustment is intended to give dialysis facilities a financial incentive for continued improvement in productivity through the more efficient use of resources. It reflects the Commission's judgment regarding productivity gains that dialysis facilities can attain in the coming fiscal year.

Last year, ProPAC sponsored a study of the historical change in the cost of providing dialysis services. It examined changes in the mix and costs of inputs used to produce hemodialysis and peritoneal dialysis treatments. The results of this study provided a basis for the productivity adjustment included in ProPAC's fiscal year 1994 update recommendation.

Between 1983 and 1987, the cost-decreasing effect of productivity improvements (on average, 4 percent per year) had a substantially greater impact

Table A-6. Estimated Impact of Cost-Increasing Technologies for Dialysis Facilities, Fiscal Year 1995 (In Millions)

Technology	Estimated Amount (In Millions)		
	Low	High	Best
Automated peritoneal dialysis cyclers	\$0.4	\$5.4	\$4.5
Increased dialysate needs	2.2	7.9	4.9
Twin bag disconnect systems	0.2	11.7	8.0
Hemodialysis machines	2.0	8.8	3.8
Dialyzers:			
High flux	0.5	4.1	3.1
High efficiency	0.4	2.4	1.2
Kinetic modeling:			
Hemodialysis	0.5	0.8	0.5
Peritoneal dialysis	0.5	0.8	0.6
Computerized systems	0.2	1.3	0.5
Total	6.7	43.3	26.9

Note: Columns may not sum to total due to rounding.

SOURCE: Abt Associates, Inc., under contract to ProPAC.

on the cost per treatment than the cost-increasing effect of scientific advances, which averaged 0.8 percent per year. Between 1987 and 1991, productivity improvements had a smaller impact on costs, yet continued to outweigh the effect of technological innovations. Dialysis treatments have become more resource intensive over time; therefore, only modest future productivity gains are anticipated.

To supplement the results of the historical cost study, ProPAC examined trends in several productivity indicators found on the Medicare Cost Report (see Table A-7). These data show that in general, labor productivity is higher in independent dialysis facilities than in hospital-based facilities, and that hospital-based providers use capital more efficiently than independent facilities. For both types of providers, however, labor productivity declined between 1990 and 1992, whereas capital efficiency improved. While these results are far from conclusive, they suggest that further capital productivity improvements may be possible.

ProPAC's analysis of unaudited cost report data showed that the cost per in-facility hemodialysis treatment for both types of facilities dropped slightly between 1991 and 1992 (see Table A-8). This may be a result of better data in 1992 or due to the fact that the market basket does not fully reflect true price increases. Alternately, it may indicate that dialysis facilities have achieved greater productivity gains than were estimated previously. In any case, it appears that the cost per treatment has been relatively stable, despite inflation.

The productivity gains observed in this industry during the 1980s were driven by changes in staffing patterns, shortened dialysis treatment times, and dialyzer reuse. Many industry experts believe these measures have reached their full potential and that further productivity enhancements may adversely affect quality of care. Moreover, widespread concern about the adequacy of dialysis may lead to longer treatment sessions.

The Commission considered a range of options in determining an appropriate productivity adjustment. The trends in costs and productivity indicators found on the Medicare Cost Report suggest a higher potential for further improvements. Concerns about the quality of dialysis services, however, would favor smaller future productivity gains. The Commission determined that a modest target of 2.0 percent is reasonable. Accordingly, a - 1.0 percentage point adjustment would allow the Medicare program and the dialysis industry to share equally in the cost savings resulting from productivity increases.

Current Costs and Payments

In considering the appropriateness of the base composite rates, ProPAC compared estimated costs per treatment in fiscal year 1994 with current payment rates. The Commission adjusted fiscal year 1992 Medicare Cost Report data to derive cost per treatment estimates for fiscal year 1994. Payments for fiscal year 1994 are the median, wage-adjusted composite rates reported in the *Federal Register* 57(222): 54179, November 17, 1992.

Table A-7. Productivity Indicators for Hospital-Based and Independent Dialysis Facilities, 1990-1992

Facility	Total Treatments Per FTE	Staff Mix	Hemodialysis Treatments Per Station	Length of Dialysis (In Hours)	Dialyzer Reuse
Hospital-based					
1990	537	0.66	622	4.5	--
1991	487	0.64	639	4.5	--
1992	485	0.64	640	4.5	--
Independent					
1990	651	0.36	570	4.7	11.1
1991	668	0.36	582	5.0	12.2
1992	630	0.36	601	4.5	13.0

Note: FTE = full-time equivalent. Staff mix = ratio of registered nurses to all direct patient care staff, which includes registered and licensed practical nurses, nursing assistants, and technicians.

SOURCE: ProPAC analysis of Medicare Cost Report data from the Health Care Financing Administration.

Table A-8. Unaudited Cost Per In-Facility Hemodialysis Treatment for Hospital-Based and Independent Dialysis Facilities, 1990-1992

Year	Facility	
	Hospital-Based	Independent
1990	\$158	\$114
1991	172	117
1992	171	115

SOURCE: ProPAC analysis of Medicare Cost Report data from the Health Care Financing Administration.

To estimate a cost per treatment that is comparable to the composite rate, the Commission calculated the average costs of dialysis treatments performed in the facility and in the patient's home separately. Next, these averages were combined based on the proportion of beneficiaries treated in each site. Because hemodialysis is the predominant modality provided in the outpatient facility, the cost per hemodialysis treatment was a proxy for all in-facility dialysis. Likewise, the cost of continuous ambulatory peritoneal dialysis (CAPD) was used for home dialysis.

The average in-facility hemodialysis cost per treatment in independent dialysis facilities reported in fiscal year 1992 was \$115. This amount was reduced by an audit adjustment factor to arrive at the portion of total facility costs that are allowable under Medicare reimbursement principles. HCFA's most recent audit of dialysis facility cost reports indicated that the allowable cost per treatment for independent facilities was roughly 12.2 percent below reported costs.

Dialysis industry representatives have challenged HCFA's past audit results and contend that Medicare's definition of allowable costs understates the true costs of providing dialysis services. A General Accounting Office (GAO) study of HCFA's 1988 cost report audits, however, found that allowable costs were actually lower than what the audits suggested.³ In response to the GAO's findings, HCFA added quality control measures to the 1991 cost report audits to ensure completeness and accuracy.

Despite the uncertainty about the true audit effect, the Commission believes HCFA's most recent audit currently is the best estimate of Medicare allowable costs. Therefore, the average cost

per treatment was reduced by 12.2 percent to arrive at a Medicare-allowable cost per treatment of \$101.

Next, ProPAC adjusted the cost per hemodialysis treatment to correct for an overhead allocation error that artificially reduces the cost per treatment. A portion of a facility's indirect administrative and general costs is allocated to the drug, recombinant human erythropoietin (EPO). Because EPO is not covered under the composite rate, its direct costs and overhead apportionment are removed from the cost per treatment calculation. Although this does not affect payments, the cost estimate is understated by the amount of allocated overhead costs. HCFA estimated this effect to be about \$3 per treatment. Therefore, the previous cost estimate was increased by \$3 to arrive at an adjusted Medicare-allowable cost per treatment of \$104.

The last step in deriving the 1994 cost per hemodialysis treatment for independent facilities was to account for inflation. ProPAC considered two methods. The first estimated inflation based on the historical growth in costs. The second method used a market basket rate of increase. These approaches yielded annual inflation estimates of 1.5 percent and 3.6 percent, respectively. Based on this analysis, the estimated 1994 cost per hemodialysis treatment for independent facilities is in the range of \$107 to \$112.

ProPAC used a similar cost per treatment estimation technique for hospital-based facilities. The reported average cost per treatment for in-facility hemodialysis in 1992 was \$171. HCFA's audits of 1991 cost reports show that hospital-based facilities overreported the cost per treatment by 4.6 percent. Therefore, the Commission reduced the reported amount to arrive at a Medicare-allowable cost per treatment of \$163. This figure was not corrected for the overhead allocation error because it is unlikely to be as significant a problem for these facilities.

Finally, the Commission inflated the Medicare-allowable cost estimate to account for price changes through 1994. Historically, the cost per hemodialysis treatment for hospital-based facilities increased at an average annual rate of 4.0 percent. The market basket projected an increase of 3.7 percent per year between 1992 and 1994. Therefore, ProPAC's fiscal year 1994 cost per hemodialysis

estimate for hospital-based facilities is between \$175 and \$176.

ProPAC also estimated the cost of providing at-home CAPD treatments in 1994. The cost and utilization data for peritoneal dialysis are less reliable than those for hemodialysis. This is due to the relatively small number of patients receiving peritoneal dialysis and inconsistent data recording practices among facilities. Nonetheless, the Commission calculated the cost per CAPD treatment in the same manner as for hemodialysis services. The best estimates for the cost per peritoneal dialysis treatment for independent facilities and hospital-based facilities in 1994 are \$89 and \$79, respectively.

The final step in deriving the best estimate of the cost of providing services covered under the composite rate was to combine the per treatment costs for hemodialysis and CAPD. Approximately 86 percent of independent facilities' patients receive hemodialysis and 14 percent receive peritoneal dialysis. Therefore, the best estimate of the cost per treatment for composite rate services in independent facilities in fiscal year 1994 is \$109. This compares with a median wage-adjusted payment of \$126. About 75 percent of hospital-based facilities' patients receive hemodialysis and 25 percent receive peritoneal dialysis. Therefore, the best estimate of the cost per dialysis treatment in hospital-based facilities for 1994 is \$151, compared with median payments of \$130.

Discretionary Adjustment—In the first several years after the composite rate was implemented, the costs of providing outpatient dialysis services declined dramatically as a result of substantial industrywide productivity improvements. Although productivity gains in the recent past have slowed somewhat, the majority of facilities have maintained their costs at a level below payments. The latest data show that in aggregate the estimated cost per dialysis treatment in fiscal year 1994 is about 5 percent below the median wage-adjusted composite rate.

ProPAC maintains that Medicare should share with providers the cost savings that accompany productivity achievements. However, because the composite rate has not been updated, Medicare has not benefited from past productivity gains in the

dialysis industry. Therefore, the Commission believes the current cost and payment differential should be recognized in the update recommendation for fiscal year 1995 through an adjustment to the base composite rate. The true relationship between costs and payments, on which the adjustment amount would be based, was difficult to determine for several reasons.

First, the Commission is concerned about the reliability of the cost data. ProPAC appreciates HCFA's efforts in compiling the unaudited cost report database and in completing the audits of fiscal year 1991 cost reports. These data were helpful in developing the recommendation. ProPAC also supports HCFA's actions to improve the quality of the cost data by adding edits to the Hospital Cost Report Information System, revising the cost report schedules and instructions, and working with facilities and fiscal intermediaries to ensure that cost reports are filed accurately and completely. However, these improvements are not apparent in the 1992 cost data.

As stated earlier, the 1992 unaudited cost report data were adjusted by HCFA's 1991 audit factors and estimate of the EPO overhead misallocation effect. However, a number of facilities and the GAO have challenged the results of HCFA's previous audits and the true audit effect is unknown. In addition, the latest data do not reflect cost increases that will likely result from recently implemented government regulations. These include the Americans with Disabilities Act, the Clinical Laboratory Improvement Act, and the Formaldehyde Standards Act.

Finally, although estimated costs in 1994 are 5 percent below payments in aggregate, this differs by facility type. The cost per treatment for independent facilities is about 13 percent below the payment rate. By contrast, average costs are approximately 16 percent above payments for hospital-based facilities.

Further analyses failed to attribute the cost difference between hospital-based and independent facilities to factors for which the payment system should compensate, such as patient mix and geographic location. Rather, the data show that the higher cost per treatment in hospital-based facilities may be due, in part, to richer employee skill mix and the

inclusion of inpatient dialysis service costs on the outpatient facility cost report. Therefore, the actual difference between costs and payments is unclear.

On the basis of its analysis of the available data, ProPAC concluded that the base composite rate

should be reduced by 4.0 percent in fiscal year 1995. This adjustment appropriately recognizes the difference between costs and payments, given the Commission's concerns regarding the reliability of the cost data.

NURSING FACILITY WAGE INDEX

Medicare payments to more than 70 percent of nursing facilities cover the cost of care to beneficiaries using the Medicare skilled nursing facility benefit.⁴ The rest receive payments less than costs, in some cases considerably less. The proportion of facilities with payments below costs varies geographically. The Commission has been concerned with these regional disparities, believing that the use of the hospital wage index in payment does not adequately adjust for regional cost differences.

Medicare pays nursing facilities on a retrospective cost basis. Payments are based on costs or charges—whichever is less—subject to several constraints. One is a limit on allowable routine costs. The limit varies by facility type (hospital-based versus free-standing) and location (urban versus rural). It is calculated from the national mean routine cost for facilities that are of the same type and in the same location. Medicare payments to most facilities are not constrained by these limits.

Nursing facility costs vary geographically because of variation in wages. Additionally, differences in local economic conditions, practice patterns, and other factors affect facility costs across areas. Further, states have a major impact on nursing facility operations and costs through their certification and oversight roles as well as through their Medicaid programs.⁵ The Commission believes the Medicare program should account for wage differences that are beyond the facility's control. It is not appropriate, however, for Medicare to compensate for cost differences that are attributable to variation in state policies.

Medicare accounts for regional differences in labor costs by adjusting the routine cost limits to reflect area wages. (More than 80 percent of nursing facility costs are for labor.) This adjustment is based on the hospital wage index, which was designed to capture variation in labor costs of hospitals paid under Medicare's PPS. The mix of employees in nursing facilities, however, differs from that in hospitals. For instance, nursing facilities employ more aides and licensed practical nurses and fewer registered nurses. Geographic variation in wages for workers typically employed

in nursing facilities is probably not the same as that for hospital workers. Thus, the hospital wage index might not adequately account for the geographic differences in labor prices that nursing facilities face.

In its March 1992 report, *Prospective Payment Systems for Skilled Nursing Facilities*, and again in both the 1992 and 1993 editions of ProPAC's *Report and Recommendations to the Congress*, the Commission recommended developing a wage index specific to nursing facilities to better reflect geographic variation in nursing facility costs. The Commission recognized that collecting nursing facility wage data and implementing a nursing facility wage index would take time. As an interim measure, it suggested in its 1992 reports that regional cost limits, rather than a national limit, might help correct geographic disparities.

Using 1991 data, ProPAC compared nursing facility payments under current policy, a nursing facility wage index, and the hospital wage index with regional limits. To do this, the Commission estimated a nursing facility wage index for each metropolitan statistical area and statewide rural area, calculated from publicly available data on nursing facility wages and full-time equivalent employees.⁶ This index provides a good basis for policy analysis, but the data need to be refined before the index is used in payment. Regional comparisons of the SNF and hospital wage indexes were based on average index values for urban and rural facilities within each region. The estimated nursing facility wage index and HCFA's hospital wage index show different patterns of geographic variation in hospital and nursing facility labor costs.

Compared with hospitals, urban nursing facilities in the northeast—New England and the Middle Atlantic states—have significantly higher labor costs, as reflected in the wage indexes (see Table A-9). By contrast, urban nursing facilities in the South Central, Mountain, and Pacific states have somewhat lower labor costs than hospitals, relative to the national average.⁷

Under current policy (the analysis was based on 1991 law and rules), facilities in some regions receive payments that are high relative to costs, while those in others receive payments that are low relative to costs. This is reflected in facility

Table A-9. Hospital and Nursing Facility Wage Indexes, by Census Division and Urban/Rural Location, Fiscal Year 1991

Census Division	Urban		Rural	
	Hospital	Nursing Facility	Hospital	Nursing Facility
New England	1.06	1.31	0.89	0.78
Middle Atlantic	1.10	1.31	0.86	1.03
South Atlantic	0.94	0.92	0.79	0.77
East North Central	1.02	0.97	0.86	0.86
East South Central	0.89	0.75	0.74	0.65
West North Central	1.04	1.05	0.84	0.89
West South Central	0.94	0.79	0.76	0.69
Mountain	1.03	0.92	0.87	0.74
Pacific	1.21	1.07	1.01	0.86

SOURCE: ProPAC analysis of data from the Health Care Financing Administration.

payment to cost ratios. Facilities in New England, West South Central, West North Central, and Mountain states are more likely to be paid less than 85 percent of costs (see Table A-10).

Regional variation in payment to cost ratios is reduced when each facility's cost limit is adjusted by the nursing facility wage index rather than by the hospital wage index. Changes in the distribution of facilities with high and low payment to cost ratios mirror the differences between the nursing facility and hospital wage indexes. Facilities in New England and the Middle Atlantic states are less likely to have payments under 85 percent of cost and are more likely to be paid at 100 percent of cost. A higher proportion of facilities in South Central and western states are paid under 85 percent of cost, while fewer are paid full cost.

Payment using regional cost limits leads to somewhat different distributional results. This could be because regional limits reflect state certification and regulatory policies, as well as the effects of different Medicaid policies, in addition to labor cost differences. Because the distributional effects of this policy are different than for the nursing facility wage index, use of regional limits does not appear to be a good interim policy prior to implementation of a nursing facility wage index.

This information supports the Commission's continued recommendation for a nursing facility wage index. Regional cost limits, however, do not appear to appropriately address the problems caused by using the hospital wage index. The Commission, therefore, does not support the use of regional limits as an interim solution.

Table A-10. Distribution of Nursing Facility Medicare Payment to Cost Ratios Under Alternative Payment Scenarios, by Census Division (In Percent)

Census Division	Current Policy		Nursing Facility Wage Index		Regional Limits	
	Under 85 ^a	100 ^b	Under 85 ^a	100 ^b	Under 85 ^a	100 ^b
New England	11%	61%	7%	82%	6%	82%
Middle Atlantic	8	76	5	84	9	75
South Atlantic	11	72	11	69	10	73
East North Central	7	78	7	74	8	75
East South Central	8	75	10	64	9	74
West North Central	13	72	15	68	17	68
West South Central	27	58	31	50	17	60
Mountain	16	63	19	48	14	66
Pacific	9	69	14	56	10	67
All nursing facilities	11	71	11	68	10	72

^a Percentage of nursing facilities with Medicare payments less than 85 percent of costs.

^b Percentage of nursing facilities with Medicare payments equal to costs.

SOURCE: ProPAC analysis of 1991 Medicare Nursing Facility Cost Reports and other data from the Health Care Financing Administration.

Notes to Appendix A

1. Data from the American Hospital Association National Hospital Panel Survey. Results from the AHA Annual Survey of Hospitals for 1993, used in ProPAC's productivity analysis, will not be available until October 1994.
2. The following five people made up the expert panel on the Medicare case-mix index: Richard F. Averill, manager, clinical research, 3M Health Information Systems; Pat Brooks, director, medical coding policy staff, Health Care Financing Administration; Grace M. Carter, director, RAND/UCLA/Harvard Center of Health Care Policy Research, RAND; Robert L. Houchens, senior statistician, SysMetrics, Inc.; and Lisa I. Iezzoni, associate professor of medicine, Harvard Medical School.
3. General Accounting Office, *Medicare: Renal Facility Cost Reports Probably Overstate Costs of Patient Care*, GAO/HRD-93-70, May 1993.
4. The licensing distinction between skilled and intermediate nursing facilities was eliminated in OBRA 1987. The Medicare benefit, however, is still referred to as the skilled nursing facility benefit.
5. Medicaid, a joint Federal-state program, is a major purchaser of nursing facility services. Many of the rules affecting nursing facilities vary among states. This variation will be reduced, however, with increased Federal nursing home oversight, as mandated in OBRA 1987.
6. Medicare Cost Report and Provider of Service file information for 7,156 Medicare-certified SNFs from 1991 was used. Total payments under each alternative equaled total payments under current (1991) policy—that is, budget neutrality was assumed.
7. Nursing facility labor costs in rural New England are lower than rural hospital costs. This may be an artifact of the small number of rural nursing facilities in the area.

Appendix B. Technical Report Series

Appendix B lists the Prospective Payment Assessment Commission's (ProPAC) extramural and intramural technical reports. These reports provide documentation related to the Commission's March and June annual reports to the Congress. The congressional reports are prepared upon request by the Congress. Each technical report is numbered according to type and year of publication. Numbers missing from the sequence refer to studies that have been replaced with more recent reports. Commission reports can be obtained from the Prospective Payment Assessment Commission, 300 7th Street, S.W., Suite 301B, Washington, D.C. 20024, or by calling the office at 202/401-8986.

EXTRAMURAL TECHNICAL REPORT SERIES

E-87-01: Improving the Definition of Hospital Labor Market Areas and Wage Indexes (Abt Associates, Inc.)

Methods for improving the definition of hospital labor market areas were investigated. This report identifies urban and rural labor market areas with the greatest amount of wage variation. It also examines the sources of wage variation within current labor markets and possible improvements in the area wage adjustment. Appended are step-by-step instructions for assigning hospitals within metropolitan statistical areas to urbanized areas as defined by the Bureau of the Census. (Formerly E-87-12.) (2/87)

E-87-03: Developing a Measure of Complexity of Illness Within DRGs (SysteMetrics/McGraw-Hill, Inc.)

The goal of this research was to refine the Commission's method of monitoring continuing changes in DRG case mix and case complexity (changes within DRGs). This study refines the Commission's methodology for estimating the annual component of real case-mix change within DRGs. The methodology was used to develop annual estimates of within-DRG case-mix change for Medicare patients from 1984 to 1986. It was also used by the Commission to estimate this component of real case-mix change in future years as additional

Medicare data became available. Estimates from this study were used to analyze the indirect medical education adjustment. (7/88)

E-87-06: Assessing the Adequacy of the Medicare Cost Report Data (SysteMetrics/McGraw-Hill, Inc.)

This report provides information on perceived strengths and weaknesses of the Medicare Cost Report. Hospital financial officers, fiscal intermediaries, and industry representatives were surveyed. In general, the results of this study indicate that most hospitals believe that the cost report is acceptable as a reimbursement tool. Most hospitals thought, however, that the cost report does not accurately measure the cost of care for Medicare beneficiaries because bad debt, charity care, patient telephones, and so forth are not recognized. PPS has resulted in changes in reporting practices. Particular attention is given to passthrough items like capital and direct medical education. (4/88)

E-87-08: Trends in the Concentration of Six Surgical Procedures Under PPS and Their Implications for Patient Mortality and Medicare Cost (Project HOPE)

This report examines trends in hospitals' volumes of six specialized surgical procedures and the impact of those trends on mortality and costs. The six procedures are coronary artery bypass grafting, total hip replacement, abdominal aneurysm repair, intestinal resection, transurethral prostatectomy, and carotid endarterectomy. (6/88)

E-87-11: Small Isolated Rural Hospitals: Alternative Criteria for Identification in Comparison with Current Sole Community Hospitals (SysteMetrics/McGraw-Hill, Inc.)

This study determines how many facilities become eligible for sole community hospital (SCH) status. The contractor also examines how the distribution of SCHs would change if the SCH criteria were altered. This study also provides information used to analyze the financial vulnerability of small isolated rural hospitals. (6/88)

E-88-01: Subacute Care in Hospitals, Synthesis of Findings from the 1987 Survey of Hospitals Case Studies in Five States (Lewin and Associates, Inc.)

This document is the final report of an 18-month study of subacute care in hospitals, often referred to as transitional care. Results of a representative national survey of hospitals are presented, along with findings from case studies in five states (California, Louisiana, New York, North Carolina, and Washington). Information is also presented on other types of transitional care, such as home health and skilled nursing care. (9/88)

E-88-02: Analysis of Hospital Sensitivity to DRG Price Variation in the Medicare Prospective Payment System (SysteMetrics/McGraw-Hill, Inc.)

This study provides information on whether hospital behavior in rendering care and assigning resources is sensitive to differences between hospital costs and PPS prices. The contractor interviewed health care consultants and hospital administrators to identify the extent and objectives of hospital strategies to concentrate in or discontinue selected services. Second, they assessed whether these strategies were in direct response to variations in the DRG prices or other factors influencing hospital management. Third, they examined the use of product line management and service costing in hospitals' responses to DRG price variations. (8/88)

E-89-01: Urban and Rural Cost Differences: Literature Synthesis and Review (SysteMetrics/McGraw-Hill, Inc.)

The reasons for differences in urban and rural hospitals' costs per case are synthesized from current research in this report. Specifically, the basis for the lower costs of rural hospitals compared with urban hospitals is explored, and further research suggested. (3/89)

E-89-02: Treatment of Certain Hospital Labor Expenses in the PPS Market Basket (SysteMetrics/McGraw-Hill, Inc.)

This report examines certain hospital labor expenses not directly measured by the PPS market basket (contract labor, employee bonuses, recruitment costs, employee benefits, overtime and part-time employment, and changes in employee skill mix).

The project examines how these costs are currently measured in the market basket and changes in these expenses between 1985 and 1988. Estimates were made of the effect these labor expenses would have on market basket increases if the expenses were directly measured in the market basket wage component. The calculations of the Average Hourly Earnings for Non-Supervisory Hospital Workers and the Employment Cost Index for Hospitals are also described in the study. (3/89)

E-90-01: The Relationship Between Declining Use of Rural Hospitals and Access to Inpatient Services for Medicare Beneficiaries in Rural Areas (Codman Research Group, Inc.)

This study examines hospital utilization patterns for Medicare beneficiaries living in defined rural and urban hospital market areas of five states—Alabama, California, Illinois, Montana, and Texas—from 1984 to 1986. The study examines Medicare beneficiary care according to the market area where the beneficiary lives. Cases are divided into eight DRG groups to examine whether access is impaired for some services and not others. The study also examines how these changes in utilization affect admissions and market share of rural and urban hospitals. (1/90)

E-90-02: Alternative Hospital Market Area Definitions (SysteMetrics/McGraw-Hill, Inc.)

This report examines alternative methods for defining hospital market areas through an extensive literature search and contact with experts in the field. The study reviews the role market areas play in PPS. It also reviews numerous alternatives that have been used for defining market areas, exploring options that have not been used for hospitals. Finally, the study provides an evaluation of the alternative methodologies and their potential applicability to PPS for defining hospital labor and product markets. (3/90)

E-90-04: The Dynamics of Hospital Services: Changing Patterns in the Services Provided by Hospitals from 1980 to 1987 (Kirsten Iversen)

The level of services and facilities provided by hospitals is dynamic, changing over time and across settings. This analysis describes patterns in the changing levels of services provided by different groups of hospitals from 1980 to 1987. (3/90)

E-90-05: Methodology for Measuring Case-Mix Change: How Much Change in the Case-Mix is DRG Creep? (The RAND Corporation)

ProPAC assisted the Health Care Financing Administration in a medical record abstraction study. This study develops a method to distinguish case-mix increases caused by changes in coding practices from changes in treatment patterns and patient mix. It also provides information for developing and refining alternative ongoing data collection methods to monitor case-mix change over time. The Commission helped fund this project and provided support in designing, implementing, and monitoring the study. (6/90)

E-90-07: How Services and Costs Vary by Day of Stay for Medicare Hospital Stays (The RAND Corporation)

This study describes how the cost of services provided during Medicare hospital stays varies throughout the stay. It also examines how patterns of daily costs vary with clinical characteristics, hospital characteristics, and the types of services provided. The study was based on data on the daily services billed to Medicare patients between May 1987 and April 1988 from a sample of 105 hospitals, and was the first time such data had been used in this way. (2/90)

E-90-08: Comparative Analysis of Annual Survey and Medicare Cost Report Margin Data (American Hospital Association)

This study presents the results of a comparative analysis of total hospital margin data derived from a matched sample of Medicare Cost Reports and corresponding American Hospital Association (AHA) Annual Survey of Hospitals. Initially, the national average Medicare Cost Report margin was significantly higher than the corresponding annual survey margin. After editing, however, the cost report margin was found to be slightly lower than the AHA figure. A telephone survey was used to investigate the reasons for the cost report/AHA discrepancies. The study analyzes the discrepancies by type of hospital and categorizes the reasons they occur. The study concludes that properly edited cost report income statement data are usable in research applications. Only one source of bias was documented as significantly affecting calculation of average total margins by hospital group. This was the failure of some public hospitals to report government subsidies as revenue on their Medicare Cost Reports. (4/90)

E-90-09: Hospital Cost Variations Under PPS (Center for Health Policy Studies, Georgetown University)

This study explores the impact of PPS and other factors in accounting for variations in total costs among hospitals during the 1980s. The goal was to understand the extent to which PPS has affected hospital costs, and the mechanisms that have produced those effects. The impact of PPS was isolated by analyzing a time-series of cost data for a sample of hospitals, while controlling for the effects of other factors, such as input prices, mix of outputs, volume of outputs, local competition, and health insurance coverage. The study also focuses on the roles of staffing, service mix, patient volume, and financial pressure to identify the mechanisms that have operated to produce PPS effects. These analyses were conducted separately for all sample hospitals and for important subgroups of the hospital industry, including urban and rural hospitals. (9/90)

E-91-01: Classification Systems for PPS-Excluded and Non-PPS Providers (Project HOPE)

This study provides an overview and evaluation of systems that measure the case mix or resource complexity of patients treated in hospitals excluded from Medicare's PPS or patients treated by non-PPS providers. PPS-excluded hospitals include psychiatric and rehabilitation hospitals and distinct-part units as well as children's, long-term, and cancer hospitals. Non-PPS providers include home health care agencies and skilled nursing facilities. The report identifies and describes available research on patient classification systems, case-mix measurement systems, and payment systems for each type of provider. Each system is evaluated using a set of criteria related to patient classification such as administrative feasibility, ability to explain variations in resource use, and clinical validity. Other criteria are applied to the evaluation of payment systems. Among the criteria used are administrative feasibility, equity of the system, and system effectiveness. (5/91)

E-91-02: Study of Health Care Access in Counties Where the Only Hospital Closed (Abt Associates, Inc.)

This report describes a study of access to health services in 22 rural counties where the only hospital closed between 1987 and 1989. These

counties are compared with a similar group of counties that did not have a hospital between 1980 and 1989. Access to health care services is evaluated on two dimensions. First, distances and travel times (from the population center of each county) to the nearest hospitals in contiguous counties are identified, and second, the types and numbers of health care providers (facilities and practitioners) in each of the counties are noted. This was accomplished using telephone surveys of county health department personnel and analysis of the Area Resource File. (5/91)

E-91-03: Utilization of Inpatient Hospital Services by Rural Medicare Beneficiaries (Codman Research Group, Inc.)

This study updates a previous analysis (E-90-01) on inpatient hospital utilization for Medicare beneficiaries living in rural and urban market areas of five states: Alabama, California, Illinois, Montana, and Texas. The analysis expands on the earlier study by looking at utilization patterns for rural beneficiaries using refined DRG case-type groupings and by separately examining utilization patterns for younger and older Medicare beneficiaries. The findings from the analysis are consistent with the earlier study, in that access to inpatient hospital services does not appear too constrained for rural Medicare beneficiaries. The study, however, raised concerns about access to ambulatory care in these communities. (5/91)

E-91-04: Volume Adjustments Used in State Medicaid Programs and Rate Setting Systems (Abt Associates, Inc.)

This report presents information about volume adjustments used to adjust payments to hospitals by state Medicaid programs. The contractor surveyed states to determine the number that use a volume adjustment, how the adjustment is calculated, eligibility requirements, whether there are upper and lower thresholds for the adjustment, and the formula used to calculate the adjustment. The contractor also laid out a theoretical framework for considering volume adjustments, and outlined the relationships between policy goals and characteristics of these adjustments. (7/91)

E-91-05: Medicaid Payment Methodologies for Inpatient Hospital Services (Abt Associates, Inc.)

This report describes state Medicaid inpatient hospital payment methodologies in effect as of July 1,

1991. The information was collected through telephone interviews with knowledgeable staff at state Medicaid offices, rate setting commissions, and hospital associations. The survey attempted to identify, describe, and document key concepts used to develop Medicaid payment systems for inpatient hospital services. (8/91)

E-91-06: An Examination of Winners and Losers Under Medicare's Prospective Payment System: A Synthesis of the Literature (Lewin/ICF)

This report summarizes the academic and popular literature on (1) hospital characteristics affecting hospital financial performance under Medicare; (2) the design features that affect winning and losing, and how hospitals responded to the incentives of PPS; and (3) the environmental and community characteristics of a hospital's local market that affect hospital financial performance. In addition, it outlines some of the perceived gaps in the literature and includes an extensive bibliography. (10/91)

E-92-01: Certification Requirements for Nursing Homes (Abt Associates, Inc.)

This report presents descriptive information on current Medicaid certification and state licensure requirements for nursing homes. It focuses on those requirements that are expected to impose significant costs on facilities and result in cost variations across states. (3/92)

E-92-02: An Examination of Winners and Losers Under Medicare's Prospective Payment System: Final Report (Lewin/ICF)

This report summarizes the findings of a series of case studies conducted by Lewin/ICF examining why, controlling for similar hospital characteristics, some hospitals do well under PPS while others do not. Factors examined include hospital behavior, such as successful management strategies, hospitals' responses to PPS, and broader environmental factors that shape hospital performance. The degree to which performance is within a hospital's control is discussed. Individual hospital descriptions are not provided. Rather, the report integrates site visit findings and synthesizes the similarities and differences between successful and unsuccessful hospitals. (7/92)

E-92-03: Report on Quality Assurance in Non-PPS Settings (Abt Associates, Inc.)

Mechanisms used to ensure and monitor quality in settings in which Medicare services are reimbursed are described. Settings included skilled nursing facilities, home health agencies, and hospitals not paid under the PPS system (children's hospitals, psychiatric hospitals, and rehabilitation hospitals). The study also looks at quality assurance in selected outpatient facilities, including ambulatory surgical centers, hospital outpatient departments, ambulatory care centers, cardiac catheterization laboratories, free-standing clinical laboratories, dialysis facilities, diagnostic imaging centers, lithotripsy centers, and comprehensive outpatient rehabilitation facilities. Quality assurance mechanisms including certification, accreditation and monitoring by federal, state, and voluntary organizations are described. Quality indicators are classified by structure, process, or outcome. (3/92)

E-92-04: Within-DRG Case-Complexity Change, 1990 (SysteMetrics/McGraw-Hill, Inc.)

ProPAC annually recommends to the Congress an update factor for increasing the standardized payment amounts under PPS. This update factor reflects changes in the cost of providing services, including changes in the cost of hospital inputs, the effects of technological and scientific advances, productivity increases, and changes in the mix of patients that hospitals treat. The distribution of cases across DRGs is captured by the Medicare case-mix index, which directly affects the payment that hospitals receive for each case. This study measures the change in the distribution of cases by complexity level within DRGs. The study uses Medicare data for fiscal years 1988 through 1990 to develop estimates of within-DRG case complexity change and examines changes in coding of secondary diagnoses, both by overall and by hospital group. (4/92)

E-93-01: Identifying Changes in the Factors of Production for Dialysis Services (Project HOPE)

This report describes an historical cost study of the factors of production for outpatient hemodialysis and peritoneal dialysis services. The study examines how the use or cost of inputs changed between 1983 and 1991, and estimates the incremental or decremental impact that the change in each input

has on the cost per dialysis treatment. The study focuses on the incremental effects of scientific and technological advances in the dialysis industry and ensuing productivity improvements. (2/93)

E-93-02: Within-DRG Case-Complexity Change, 1991 (SysteMetrics, Inc.)

This study measures the change in within-DRG case complexity change from 1989 to 1990 and from 1990 to 1991. It also examines changes in the number of secondary diagnoses and complications and comorbidities from 1989 to 1991. This information is used for ProPAC's within-DRG case-complexity adjustment. The within-DRG case-complexity adjustment is designed to capture increases in patient complexity that are not measured by the DRGs. It is part of the case-mix adjustment in ProPAC's annual PPS operating and capital update recommendation to the Congress. The case-mix adjustment allows hospital payments to increase for real case-mix change, while removing payment increases that are due to changes in medical record documentation or coding practices. (2/93)

E-93-03: Exploring the Growth of Hospital Outpatient Surgeries (Abt Associates, Inc.)

This report identifies and assesses the principal factors that contributed to the growth observed between 1988 and 1990 in the use of five groups of procedures performed in the hospital outpatient department. The five groups selected were knee arthroscopy, YAG laser, lithotripsy, sigmoidoscopy and colonoscopy, and breast biopsies. These families of procedures were selected because they represented varying levels of complexity, exemplified a variety of clinical problems, were in the top 50 most frequently performed ASC-approved procedures, and had a high growth rate between 1988 and 1990. The factors affecting increased procedure volume were physician practice patterns and treatment approaches, technology requirements, the capacity of physicians and hospitals to perform the procedure, shifts in setting in which the procedure is performed, and reimbursement practices. (3/93)

E-93-04: Analysis of the Effect of the Economic Stabilization Program (Abt Associates, Inc.)

This report describes the effect of the economic stabilization program (1971-1974) on health care prices and expenditures. Previous studies of the

program are reviewed and compared. Additionally, descriptive data on health care expenditures by type of service and program, health care prices, and hospital revenues and expenditures are displayed. (5/93)

E-93-05: State Regulations and Policies That Affect the Provision of Post-Acute Care (Abt Associates, Inc.)

This report presents descriptive information about state regulations and policies that affect the staffing requirements, services provided, and patient mix of Medicare-certified skilled nursing facilities and home health agencies. (6/93)

E-93-06: Development of Hospital Efficiency Measures (Jenifer Ehreth, Ph.D.)

This report evaluates several measures of how efficiently hospitals use their capital assets and compares asset efficiency and hospital financial performance across types of hospitals. Descriptive statistics and factor analysis are used to assess the reliability and validity of several measures over a three-year period. Three measures—the current ratio, the long-term debt to net fixed assets ratio, and an asset efficiency measure using data envelopment analysis techniques—are evaluated in more detail because they appear promising for analyzing the impact of payment policies on asset efficiency. (3/93)

Pending

Medicaid Reimbursement Methodologies and Payment Rates for Home Health Agencies (Abt Associates, Inc.)

This study will present survey results on state Medicaid programs' reimbursement methodologies and payment rates for home health care services. Information will be presented in table format for each service (skilled nursing; physical, speech, and occupational therapies; medical social services; and home health aides). Each table will include information on the following items: payment rates; rate-setting methodologies; whether the rate is agency-specific, class-based, or flat; cost components that are treated separately in the payment process; and payment update factors. (3/94)

Quality-Oriented State Licensing Requirements for Home Health Agencies (Abt Associates, Inc.)

This study will present survey results on state licensing requirements for home health agencies. Data on the 38 states that license agencies will be summarized and presented in table format. Information will be collected on state standards for organizational structure and administration, personnel, service provision, medical documentation, internal quality assurance processes, minimum access and transfer affiliations, equipment, and certificate of need. Licensure requirements that differ from Medicare certification will be emphasized. (3/94)

Quality-Oriented State Licensing Requirements for Nursing Homes (Abt Associates, Inc.)

This study will present survey results on state licensing requirements for nursing homes. The report will include a summary and individual data tables for each state's licensing requirements. Information will be presented on state standards for organizational structure and administration, personnel, service provision, medical documentation, internal quality assurance processes, minimum access and transfer affiliations, equipment, and certificate of need. Licensure requirements that differ from Medicare certification will be emphasized. (3/94)

Quality-Oriented State Licensing Requirements for Ambulatory Care Providers (Abt Associates, Inc.)

This study will present survey results on state licensing requirements for several types of ambulatory health care facilities. The following providers are included: ambulatory surgery centers, ambulatory care centers, comprehensive outpatient rehabilitation centers, free-standing cancer centers, free-standing diagnostic imaging centers, free-standing lithotripsy centers, free-standing cardiac catheterization centers, free-standing dialysis centers, and independent clinical laboratories. Items reviewed include state licensing requirements related to organizational structure and administration, personnel, service provision, medical documentation, internal quality assurance processes, minimum access and transfer affiliations, equipment, and certificate of need. Licensure requirements that differ from Medicare certification

will be emphasized. The report will be divided into chapters on each provider type with appendixes that include data tables for each provider's licensing requirements. (3/94)

INTRAMURAL TECHNICAL REPORT SERIES

I-88-02: Recalibration Analysis Comparing Charge-Based and Cost-Based DRG Weights

ProPAC analyzed the two methods of recalibrating the DRG relative weights, using charges only (charge based) and using charges that are adjusted by costs (cost based). This report provides a detailed description of the data, methods, and results of ProPAC's comparisons. (3/88)

I-89-03: Review of Medicare Cost Report Data for Policy Analysis

This report summarizes the Commission's work on the use of the Medicare Cost Report data for decision making. The major activity the Commission initiated to identify improvements in the use of existing cost data for policy analysis was to convene a panel to discuss the strengths and weaknesses of the Medicare Cost Report. The report also summarizes ProPAC's monitoring of HCFA's three-year demonstration assessing the costs and benefits of adding to the cost report financial and utilization information regarding other payers. (3/89)

I-89-04: Payment Adjustments—Indirect Teaching and Disproportionate Share Hospitals

ProPAC analyzed the effect of teaching effort on Medicare costs. The objectives of the analysis were to estimate the relationship between teaching effort and Medicare cost per case using the most recent Medicare Cost Report data available. ProPAC also examined the overlap between the indirect medical education and the disproportionate share payment adjustments and evaluated the financial impact of revising the indirect medical education adjustment. The report describes the methods and results of the analysis. (7/89)

I-90-01: Medicare-Dependent Hospitals Under PPS

The Omnibus Budget Reconciliation Act of 1989 required the Commission to study the appropriateness of making a Medicare payment adjustment to

hospitals that treat a high proportion of Medicare discharges. Information on this topic was also included in ProPAC's June 1990 report, *Medicare Prospective Payment and the American Health Care System*. (6/90)

I-90-02: Adjusting the Area Wage Index for Occupational Mix

Currently, the area wage index does not account for geographic differences in occupational mix. ProPAC studied the effect of adjusting the area wage index for occupational mix and the relationship of occupational mix to case mix. This report describes the methods and results of the analysis. The results include metropolitan statistical area, regional, and urban/rural estimates of the impact. The report also calculates how payments would be affected by adjusting the wage index for occupational mix. (4/90)

I-90-04: Financial Status of High Case Mix Hospitals

The Omnibus Budget Reconciliation Act of 1989 required the Commission to study the financial status of high case mix hospitals with special attention devoted to capital investment. Information on this topic was included in ProPAC's June 1990 report, *Medicare Prospective Payment and the American Health Care System*. (6/90)

I-91-01: Hospital Closures: 1985-1988

This report contains descriptive statistics on hospitals that closed between 1985 and 1988. Data are from the AHA Annual Survey of Hospitals, Medicare Cost Reports, and the Area Resource File. Rural and urban hospitals that closed are analyzed separately and compared with open rural and urban hospitals having fewer than 200 beds. (1/91)

I-91-02: The Role of Profitability and Community Characteristics in Hospital Closures

This study investigates hospital closures that occurred from 1985 through 1988. The analysis focuses on the relationship between profitability and closure. Further, the analysis evaluates the impact on profitability of characteristics related to the hospital's mission and standing in the community. In addition, the analysis is extended by examining the factors that influence profitability and its

components: revenue per case, cost per case, and total cases. This report provides a detailed description of the data, methods, and results of the study. (2/91)

I-91-03: Improving the Area Wage Index: The Area Wage Index and the Mix of Occupations Across Areas

Currently, the area wage index incorporates differences in the price of labor, as well as the mix of occupations across areas. This report presents the results of ProPAC's study on the effect of adjusting the area wage index for occupational mix. The results are presented separately for metropolitan statistical areas and rural areas. The study is based on Uniform Reporting System data collected from California hospitals. The report also describes the method used in California to collect data by occupational category. (7/91)

I-91-04: The Trend and Distribution of Hospital Uncompensated Care Costs, 1980-1989

This report presents the results of an analysis of uncompensated care costs for both PPS and PPS-excluded hospitals. Uncompensated care for this study is defined as the sum of charity care and bad debts, and uncompensated care costs are measured both with and without an offset for subsidies received from state and local governments. The study is based on data from the AHA Annual Survey of Hospitals over the period 1980 to 1989. Both the trend and distribution of uncompensated care costs are measured by hospital group. In addition, the relationship between uncompensated care costs and indirect medical education and disproportionate share payments under Medicare is examined. (4/91)

I-92-01: Winners and Losers Under PPS

Although the aggregate margin of hospitals under PPS has declined, some hospitals continue to perform well. In this report, ProPAC analyzes the characteristics of hospitals with consistently high and consistently low margins under PPS in 1986, 1987, and 1988. The characteristics are broken into three groups: payment adjustments, factors within the hospital's control, and factors outside the hospital's control. The focus of the study is to determine the relative role of these factors in performance under PPS. This report provides a detailed

description of the data, methods, and results of the study. (3/92)

I-92-02: The Effect of the OBRA 1989 Payment Provisions for Small Rural Medicare-Dependent Hospitals

In 1989 and 1990, ProPAC analyzed the financial status of hospitals with high Medicare shares. The ProPAC analysis, described in *Medicare-Dependent Hospitals Under PPS* (TRS I-90-01), indicated that the classification of hospitals into groups based on Medicare dependence is arbitrary and inconsistent over time. Further, although hospitals with high Medicare shares tend to perform more poorly under PPS, this poor performance appears to be related to characteristics other than Medicare share, notably low occupancy rates and long average lengths of stay. Based on these findings, the Commission recommended that no payment adjustment be made for Medicare-dependent hospitals. In the Omnibus Budget Reconciliation Act (OBRA) of 1989, Congress provided special treatment under PPS for small rural Medicare-dependent hospitals for three years (cost reporting periods beginning on or after April 1, 1990, and ending on or before March 31, 1993). This provision expires in 1993; legislation has been introduced in the Congress to extend it to 1995. This report describes an analysis of the financial performance of small rural Medicare-dependent hospitals as defined in OBRA 1989 and the impact of the special provision on Medicare payment of these hospitals. (7/92)

I-93-01: The Accuracy of Cost Measures Derived from Medicare Cost Report Data

This report summarizes the findings and policy implications of a study conducted by the Center for Health Policy Studies. The primary objective of the study was to assess the accuracy of the hospital-level and DRG-level cost measures that can be constructed using Medicare Cost Report data. The first part of the study tested the impact of potential refinements in the Medicare Cost Report cost finding approach, such as using a standard cost center configuration or a multiple allocation technique. These types of changes were found to have relatively little impact. The second part compared values from advanced hospital cost accounting systems with values from the cost reports of the same hospitals. Substantial differences were documented for total Medicare

costs, routine and ancillary costs, and average cost per case by DRG. (3/93)

Pending

Indirect Medical Education and Disproportionate Share Payment Adjustments to Hospitals

ProPAC will analyze the effect of teaching effort on Medicare costs. The objectives of the analysis are to estimate the relationship between teaching effort and Medicare cost per case using the most recent Medicare Cost Report data available. The study will also examine the overlap between the indirect medical education and the disproportionate share payments by revising the indirect medical education adjustment. The report will describe the methods and results of the analysis, and will build on analysis reported in ProPAC's *Payment Adjustments—Indirect Teaching and Disproportionate Share Hospitals* (TRS I-89-04). (3/94)

Improving the Area Wage Index: Alternative Definitions of Hospital-Specific Labor Market Areas

In response to requests from the House Ways and Means Committee and the Senate Committee on Finance, ProPAC has been studying alternative methods for defining hospital-specific labor market areas based on hospital geographic proximity. This project will develop and evaluate alternative labor market areas that could be used to improve the accuracy of the hospital area wage index under PPS. The report will describe the methods and findings from the Commission's study. It will include results from a series of analyses designed to shed light on the characteristics and performance of the alternative definitions. In addition, the report will include estimates of the impact of adopting alternative wage indexes based on these market area definitions. (4/94)

Outlier Payment Policy

This report will describe the results of recent analyses of the distribution of outlier cases and payments across DRGs and hospital groups and over time. The objectives and basic elements of outlier payment policy will be reviewed, along with data from previous analyses by ProPAC, HCFA, and others. Major issues that have been discussed in the context of recent and proposed future changes in outlier

payment policy will be described. In addition, the report will describe and discuss the Commission's recommendations for fiscal year 1994 and 1995. (6/94)

Transfer Payment Policy

This report will present the results of an analysis of Medicare's payment for transfer cases. Currently, the transferring hospital is paid a uniform per diem payment up to the full DRG amount. The receiving hospital is paid the full DRG payment if it is the final discharging hospital. The analysis will examine the relationship between payments and costs for these cases. In addition, it will look at the characteristics of hospitals and cases involved in a transfer sequence. The study will also include information on trends in transfer rates since 1984. (6/94)

Hospital Revenue Sources: An Analysis of Gains, Losses, and Cost Shifting

This report will present the results of an analysis of community hospital losses and gains by source of revenue, including Medicare, Medicaid, uncompensated care, private payers, and non-patient revenue. The data for the analysis are from the AHA Annual Survey of Hospitals. The report will include trend data on payments, costs, and charges. Data from 1991 will be used to analyze the distribution of gains and losses for the different revenue sources, the relationship between these losses and hospital margins, and state-by-state differences. The report will compare the characteristics of hospitals that are and are not able to recover significant losses from uncompensated care, Medicaid, and Medicare through cost shifting. (7/94)

The Supply of Home Health Services for Medicare Beneficiaries

The primary objective of this study is to develop an appropriate measure of the supply of home health agency services for Medicare beneficiaries. This report will review the supply measures that have been used in the empirical research, propose alternative measures of supply, and evaluate these measures in terms of their feasibility and their association with utilization. (8/94)

Patterns of Post-Acute Care for Medicare Beneficiaries with Hip Fractures

The Medicare benefit includes three post-acute services—home health, skilled nursing facility, and

rehabilitation services. Expenditures for these services have been growing rapidly since the implementation of PPS, especially in the past few years. This study will identify the factors that are associated with the use of these different services and variations in the level of services used for beneficiaries with hip fractures. Total episode expenditures for beneficiaries using different patterns of services will also be examined. (8/94)

Medicare Per Capita Expenditures and Costs

This report will present a descriptive analysis of the variation in per capita expenditures for elderly beneficiaries by state and between the rural and urban areas of each state. Four per capita measures are being developed: (1) Medicare spending, (2) Medicare payments standardized to the national level (which will isolate geographic differences in utilization), (3) the provider production costs associated with Medicare spending, and (4) production costs adjusted for geographic price differences. All four of these measures will be broken down by type of service. Geographic comparison will also be enhanced in the second and fourth measures by controlling for age and sex differences and by adding an estimated value for care provided to the elderly in military and Veterans Affairs hospitals. (9/94)

CONGRESSIONALLY MANDATED REPORTS

C-88-01: An Evaluation of the Department of HHS Report to Congress on Studies of Urban-Rural and Related Geographical Adjustments in the Medicare PPS

The Omnibus Budget Reconciliation Act of 1987 required ProPAC to report to the Congress on its evaluation of the Secretary's study on the feasibility and impact of eliminating or phasing out separate urban and rural payment rates. The report is organized into four major sections: background and definition of issues, summary of the Secretary's study methods and findings, ProPAC's evaluation of the Secretary's study, and future direction of Commission activities. (6/88)

C-88-02: Linking Medicare Capital Payments to Hospital Occupancy Rates

The Omnibus Budget Reconciliation Act of 1987 required ProPAC to report to the Congress on the

suitability and feasibility of linking Medicare capital payments to hospital occupancy rates. This was addressed by reviewing current Medicare capital payment principles, examining historical trends in capital costs and occupancy rates, and analyzing the relationship between capital costs and occupancy. (4/88)

C-88-03: Outlier Payment Alternatives for Burn Cases

The Omnibus Budget Reconciliation Act of 1987 required ProPAC to study alternative payment methods for burn outlier cases under the prospective payment system. In this report, the Commission examines costs and PPS payments for all burn cases, as well as those for outlier cases only. Differences between payments and costs for burn hospitals and units and other PPS hospitals are examined. (7/88)

C-88-04: The Views of the Prospective Payment Assessment Commission on Developing Medicare Payment for Hospital Outpatient Surgery

The Omnibus Budget Reconciliation Act of 1987 required the Secretary of Health and Human Services to solicit ProPAC's views in developing outpatient payment systems and to include these views in a series of reports to Congress. This report focuses on the facility component of payment for surgeries performed in hospital outpatient settings. (8/88)

C-88-05: Separate PPS Payment Rates for Hospitals in Large Urban Areas and Other Urban Areas

The Omnibus Budget Reconciliation Act of 1987 required ProPAC to "evaluate the desirability of maintaining separate DRG prospective payment rates for hospitals located in large urban areas...and in other urban areas." The report first describes how PPS currently treats hospitals in different sized urban areas. Descriptive information comparing hospitals in these areas is then presented. This is followed by a discussion of the PPS policy implication of variation in costs and margins by metropolitan statistical area size. (12/88)

C-89-01: Medicare Payment for Hospital Outpatient Surgery: The Views of the Prospective Payment Assessment Commission

The Omnibus Budget Reconciliation Act of 1987 required the Secretary of Health and Human

Services to solicit the Commission's views on prospective payment for hospital outpatient surgery. This report contains ProPAC's recommendations and related rationale on such payment policy beginning in fiscal year 1990. It also presents background information used by the Commission in its deliberations, including the findings of ProPAC's analysis of hospital outpatient surgery costs. (4/89)

C-89-02: Payment Rates for Hospitals Redesignated from Rural to Urban: Analysis and Recommendations

The Technical and Miscellaneous Revenue Act of 1988 required ProPAC to study and report to Congress on the appropriate PPS payment for hospitals redesignated as urban in the Omnibus Budget Reconciliation Act of 1987. This study evaluates the payment policy and the treatment of wage and wage-related costs in computing area hospital wage indexes. The financial impact of various policy options on both the redesignated hospitals and on other hospitals located in the affected urban and rural areas is also assessed. (8/89)

C-89-03: Adjustment to the Non-Labor-Related Portion of the Standardized Amounts

The Omnibus Budget Reconciliation Act of 1987 required ProPAC to analyze the feasibility and appropriateness of a geographic adjustment to the non-labor-related portion of the PPS standardized amounts. Price data for non-labor components of the hospital market basket are compiled from available data sources to determine whether non-labor prices vary by geographic area. The report contains this information and the Commission's determination of whether such an adjustment is feasible and appropriate. (8/89)

C-89-04: Adequacy of PPS Payment for Medicare Beneficiaries with Hemophilia

The House Ways and Means Committee asked ProPAC to assess the adequacy of PPS payment for Medicare inpatients with hemophilia. This report studies the population size, trends in the price of the clotting factor, and the financial impact on hospitals for treating these patients. (10/89)

C-90-01: Payments to Rural Sole Community and Small Rural Hospitals

The Omnibus Budget Reconciliation Act of 1989 required the Commission to submit a report to

Congress on the feasibility and desirability of using a cost-based reimbursement system for paying small rural hospitals and sole community hospitals. Secondly, ProPAC was to assess the impact of using alternative market share definitions to determine eligibility for sole community hospital classification, and of accounting for decreases in admissions in determining payments to small rural hospitals or their costs. This report summarizes the Commission's findings. (5/90)

C-90-02: Payments for Services in Hospital Outpatient Departments

The Omnibus Budget Reconciliation Act of 1989 required the Commission to submit a report to Congress on several issues related to outpatient payments. This report examines the growth in hospital outpatient services and the revenues generated by outpatient visits. The costs of providing services in hospital outpatient departments are compared to those associated with free-standing centers. Last, outpatient quality assurance and peer review are discussed. (7/90)

Medicare-Dependent Hospitals

The Omnibus Budget Reconciliation Act of 1989 required the Commission to study the appropriateness of making an adjustment to Medicare payments to hospitals that treat a high proportion of Medicare discharges. Information on this topic was included in ProPAC's June 1990 report, *Medicare Prospective Payment and the American Health Care System*. (6/90)

Financial Status of High Case Mix Hospitals

The Omnibus Budget Reconciliation Act of 1989 required the Commission to study the financial status of high case mix hospitals with special attention devoted to capital investment. Information on this topic was included in ProPAC's June 1990 report, *Medicare Prospective Payment and the American Health Care System*. (6/90)

Area Wage Index

The Omnibus Budget Reconciliation Act of 1990 required ProPAC to examine available data from states and other sources measuring earnings and paid hours of employment of hospital workers by occupational category. The impact of variation in occupational mix on the computation of the area

wage index is included. Information on this topic was included in ProPAC's March 1991 *Report and Recommendations to the Congress*. (3/91)

Nurse Practitioners and Other Non-Physician Providers

The Senate Committee on Appropriations asked that ProPAC study the use of nurse practitioners and other non-physician providers in settings other than acute care facilities and long-term care institutions. Information on this topic was included in ProPAC's June 1991 report, *Medicare and the American Health Care System*. (6/91)

C-91-01: The Commission's Views on Capital Payment Policy

This report summarizes the Commission's analyses of hospital capital costs and views on Medicare's capital payment policy. ProPAC's objectives for evaluating capital payment, along with supporting data and opinions, are presented. The Commission also comments on the Secretary of Health and Human Services' prospective payment proposal. (5/91)

C-91-02: Medicaid Hospital Payment

The Omnibus Budget Reconciliation Act of 1990 required the Commission to conduct a study of Medicaid hospital payment rates. The study examines the relationship between Medicaid and Medicare payments, and the financial condition of the hospitals receiving Medicaid payments. Special attention is given to hospitals in urban areas that treat large numbers of people eligible for Medicaid and other low-income persons. (10/91)

C-91-03: Rural Hospitals Under Medicare's Prospective Payment System

The Senate Committee on Appropriations requested a report examining the changes made in rural hospital payment policies and their fiscal impacts. The report includes an analysis of the impact of 1991 payment rules on 1984 and 1989 hospital margins and assesses the relative importance of individual policy changes. In addition, ProPAC was asked to study the effect of low volume on overhead costs and payments. The report includes a discussion of the relationship between volume and financial performance, and case mix and performance. The adequacy of national DRG weights for rural hospitals

and differences between sole community and other small rural hospitals' characteristics and financial condition are also discussed. Finally, the report includes a profile of services offered by rural hospitals. (10/91)

C-91-04: Passthrough Payments for Hemophilia Inpatients

The Omnibus Budget Reconciliation Act of 1989 required the Commission to submit a report to Congress that contains recommendations on paying for the cost of administering blood clotting factors to inpatients with hemophilia. This report summarizes the Commission's findings. (6/91)

C-92-01: Prospective Payment System for Skilled Nursing Facilities

The Omnibus Budget Reconciliation Act of 1990 required the Secretary of Health and Human Services to develop a proposal to modify the current system under which skilled nursing facilities receive payment for extended care services under Medicare Part A or a proposal to replace this system with a prospective payment system. The Commission is required to submit an analysis of and comments on the proposal. This background report describes the Medicare SNF benefit, payment method, and beneficiary utilization. A cost function analysis provides information on variations in costs across facilities. Federal and state regulations affecting facility costs and use of the benefit also are discussed. This report concludes with recommendations concerning the need for a nursing facility wage index and case-mix adjustment in Medicare's payment policy. When the Secretary's report is released, the Commission will submit comments to the Senate Committee on Finance and the House Committee on Ways and Means. (3/92)

C-92-02: Medicare Payment for Hospital Outpatient Services: The Views of the Prospective Payment Assessment Commission

The Omnibus Budget Reconciliation Act of 1990 required the Secretary of Health and Human Services to develop a model system for Medicare payment for hospital outpatient services. The Commission is required to submit an analysis of and comments on the proposal. This background report describes Medicare's outpatient payment policies, which may vary by site of care and type

of service. Ambulatory surgery and radiology are used to discuss problems with the current payment policy. The report concludes with nine recommendations for outpatient payment policy reform. When the Secretary's report is released, the Commission will submit its comments. (3/92)

C-92-03: Optional Hospital Payment Rates for Private Payers Based on Medicare's Methods (As specified in H.R. 3626)

This report addresses the development and impact of a system of Medicare-based rates for optional use by private insurers to control the growth in their payments to hospitals. The first part of the report discusses the design decisions that would need to be made, the steps necessary for orderly implementation of the system, and the administrative processes for ongoing operation of the system. The second part presents data on cost shifting in the hospital industry, and then uses these and other data to estimate the savings that would result from using optional rates under several different sets of assumptions. It also includes a discussion of the effects of optional rates on hospitals, private and government insurers, other providers, and patients. (3/92)

C-92-04: End-Stage Renal Disease Payment Policy

The Omnibus Budget Reconciliation Act of 1990 required the Commission to conduct a study to determine the costs, services, and profits associated with various modalities of dialysis treatments provided to end-stage renal disease patients. This study is the basis for recommendations regarding the method and level of payments for the facility component of dialysis services beginning in fiscal year 1993. The methodology to be used to update payment for subsequent fiscal years is included. As part of its annual March report, starting with fiscal year 1993, ProPAC is required to report its recommendations to Congress on an appropriate payment update factor. (6/92)

C-92-05: Interim Report on Payment Reform for PPS-Excluded Facilities

The Omnibus Budget Reconciliation Act of 1990 required the Secretary of Health and Human Services to develop a proposal to modify the current system under which PPS-excluded hospitals receive

payment for the operation and capital-related costs of inpatient hospital services under Part A of the Medicare program. Alternatively, the Secretary could propose a system with payments made on the basis of nationally determined average standardized amounts. Although the Secretary has not submitted her proposal, the Commission prepared this background report. When the Secretary's report is released, the Commission will analyze it and submit comments to the Senate Committee on Finance and the House Committees on Ways and Means, and Energy and Commerce. (10/92)

C-93-01: Global Budgeting—Design and Implementation

In response to a request from the House Committee on Ways and Means, Subcommittee on Health, the Commission examined the implementation of a global budgeting system. ProPAC focused on the system's application to hospitals and other institutional health care services. The report addresses issues involved in the allocation of a national budget among types of health care services, the availability of data to support the system, and the mechanisms for ensuring that budget targets are met. (7/93)

C-94-01: Analysis of Medicaid Disproportionate Share Payment Adjustments

The Medicaid Voluntary Contribution and Provider-Specific Tax Amendments of 1991 (P.L. 102-234) required ProPAC to conduct a study of Medicaid disproportionate share payment adjustments. This study examines the feasibility and desirability of establishing maximum and minimum payment adjustments for hospitals deemed disproportionate share hospitals. It also assesses criteria (other than existing ones) that are appropriate for designating disproportionate share hospitals under Section 1923 of the Social Security Act. The report was submitted to the Senate Committee on Finance and the House Committee on Energy and Commerce. (1/94)

C-94-02: Interim Analysis of Payment Reform for Home Health Services

The Omnibus Budget Reconciliation Act of 1990 required the Secretary of Health and Human Services to develop a proposal to modify the current system under which Medicare pays for home health services or a proposal to replace such system with a

prospective payment system. The Commission is required to submit an analysis of and comments on the proposal to the Senate Committee on Finance and the House Committees on Ways and Means, and Energy and Commerce. This background report describes Medicare's home health benefit, payment method, use, and agency costs and payments. Federal and state regulations affecting access and quality of care also are discussed. When the Secretary's report is released, the Commission will submit comments to the Senate Committee on Finance and the House Committee on Ways and Means. (3/94)

Pending

Analysis of the Secretary's Proposal for Skilled Nursing Facility Payment Reform

The Omnibus Budget Reconciliation Act of 1990 required the Secretary of Health and Human Services to develop a proposal to modify the current system under which skilled nursing facilities receive payment for extended care services under Medicare Part A or a proposal to replace this system with a prospective payment system. The Commission is required to submit an analysis of and comments on the proposal to the Senate Committee on Finance and the House Committees on Ways and Means, and Energy and Commerce. (This report will be issued after the Secretary's proposal becomes available.)

Analysis of the Secretary's Proposal for Medicare Payment for Hospital Outpatient Services

The Omnibus Budget Reconciliation Act of 1990 required the Secretary of Health and Human Services to develop, by September 1, 1991, a model system for Medicare payment for hospital outpatient services. The Commission is required to submit an analysis of and comments on the proposal to the Senate Committee on Finance and the House Committees on Ways and Means, and Energy and Commerce. (This report will be issued after the Secretary's proposal becomes available.)

Analysis of the Secretary's Proposal for Payment Reform for PPS-Excluded Facilities

The Omnibus Budget Reconciliation Act of 1990 required the Secretary of Health and Human Services to develop a proposal to modify the current system under which PPS-excluded hospitals receive payment for the operation and capital-related costs of inpatient hospital services under Part A of the Medicare program. Alternatively, the Secretary could propose a system with payments made on the basis of nationally determined average standardized amounts. The Commission is required to submit an analysis of and comments on the Secretary's proposal to the Senate Committee on Finance and the House Committees on Ways and Means, and Energy and Commerce. (This report will be issued after the Secretary's proposal becomes available.)

Analysis of the Secretary's Proposal for Home Health Service Payment Reform

The Omnibus Budget Reconciliation Act of 1990 required the Secretary of Health and Human Services to develop a proposal to modify the current system under which Medicare pays for home health services or a proposal to replace such system with a prospective payment system. The Commission is required to submit an analysis of and comments on the proposal to the Senate Committee on Finance and the House Committee on Ways and Means. (This report will be issued after the Secretary's proposal becomes available.)

Analysis of the Secretary's Legislative Proposal Eliminating Separate Average Standardized Amounts

The Omnibus Budget Reconciliation Act of 1989 required the Secretary of Health and Human Services to prepare a legislative proposal eliminating separate average standardized amounts for hospitals located in large urban, other urban, and rural areas. It also directed ProPAC to submit a report to Congress analyzing this proposal and its impact on hospitals. (This report will be issued after the Secretary's proposal becomes available. It should be noted that in OBRA 1990, Congress mandated the elimination of the separate rural standardized payment amount by fiscal year 1995.)

Appendix C. Biographical Sketches of Commissioners

Stuart H. Altman, Chairman

Stuart H. Altman is the Sol C. Chaikin Professor of National Health Policy at the Florence Heller Graduate School of Social Policy at Brandeis University. An economist whose research interests are primarily in the area of Federal health policy, he has been at Brandeis since 1977. Between 1971 and 1976, Professor Altman was deputy assistant secretary for planning and evaluation/health at the Department of Health, Education, and Welfare (now the Department of Health and Human Services). From 1973 to 1974, he also served as the deputy director for health of the President's Cost of Living Council, where he was responsible for developing the council's program on health care cost containment. Professor Altman is a member of the Institute of Medicine of the National Academy of Sciences and a former member of its governing council, and serves on the board of Beth Israel Hospital (Boston). He is a past president of the Association for Health Services Research and a former board member of The Robert Wood Johnson Clinical Scholars Program. He has testified before the Congress on a wide range of health policy issues and has written an array of articles in the field. Professor Altman received both an M.A. and a Ph.D. in economics from the University of California, Los Angeles.

Richard A. Berman

Richard A. Berman is president and chief executive officer of Howe-Lewis International. Before joining Howe-Lewis, he was a vice president of Korn/Ferry International responsible for the health care practice in the firm's eastern region. Mr. Berman was previously a practice leader for health care at McKinsey & Company, Inc. He serves as a trustee of the State University of New York and is a member of the National Advisory Council for the National Institute of Nursing Research. In addition, he is a member of New York's Governor's Task Force on Health Reform and the New York State Legislature's Review Panel on Empire Blue Cross Blue Shield. Mr. Berman was the executive vice president of New York University Medical Center from 1983 to 1986. He was a cabinet official for

New York State from 1977 to 1982, first as director of the New York State Office of Health Systems Management and later as the commissioner of the Division of Housing and Community Renewal. Before that, Mr. Berman served as director of health policy for the U.S. Economic Stabilization Program, and as special assistant to the assistant secretary of health, Department of Health and Human Services. He has also held administrative positions at the New York Hospital, Cornell University Medical School, The Robert Wood Johnson Foundation, and the University of Utah Hospital. He is a member of the Institute of Medicine of the National Academy of Sciences and a fellow of the American College of Health Care Executives. Mr. Berman has published many articles in the health care field. He received B.A., M.B.A., and M.H.A. degrees from the University of Michigan.

James D. Bernstein

James D. Bernstein is director of the North Carolina Office of Rural Health and Resources Development, which has established 54 community-based health centers and recruited more than 1,100 providers to the state since 1973. He also serves as president of the nonprofit North Carolina Foundation for Alternative Health Programs. Previously, Mr. Bernstein administered a 40-bed hospital and eight health centers for the Indian Health Service. He has held a variety of professional positions, including chairman of the Rural Health Care Advisory Panel of the Office of Technology Assessment and chairman of the rural health steering committee of the National Academy for State Health Policy. He currently is project director for The Robert Wood Johnson Foundation initiative, Practice Sites: State Primary Care Development Strategies. Mr. Bernstein received a B.A. from the Johns Hopkins University and an M.H.A. from the University of Michigan.

Clay D. Edmands

Clay D. Edmands is president of Asbury-Salina Regional Medical Center in Salina, Kansas, an

acute care rural referral center and an Equal Access Community Hospital. He was active in the development of Health Frontiers, Inc., a large multihospital organization that has been replaced by Voluntary Hospitals of America. His prior experience includes several years with the Fairview Hospital System in Minneapolis, Minnesota, where he held various positions, including assistant administrator for development and operations of regional health management and supportive services. Mr. Edmands participated on the Kansas Hospital Association Board from 1980 to 1992, serving as chairman, treasurer, and member of the executive committee. In addition to his two terms on the American Hospital Association Regional Policy Advisory Board, Mr. Edmands has been president of the Health Systems Agency of the Western Kansas Board. Other community involvements include Salina Health Education Board and Voluntary Hospitals of America. Mr. Edmands has been a faculty preceptor for the University of Minnesota independent study program in hospital administration. He currently is a preceptor for the University of Kansas program in health care administration. He holds a B.S. in business administration from the University of Kansas and an M.H.A. from the University of Minnesota. In addition, he was graduated from the Graduate Naval Supply Corps School and the Naval Officers Candidate School.

William S. Hoffman

William S. Hoffman has been director of the Social Security Department of the International Union of the U.A.W. since 1984. Previously, he was the assistant director and a consultant to the department. Dr. Hoffman is also director of the Michigan Health and Social Security Research Institute, Inc., where from 1973 to 1980 he was a senior research associate. An active participant in national and state health care issues, Dr. Hoffman has served on the Michigan Certificate of Need Commission, the Department of Health and Human Services' Council on Graduate Medical Education, the Department of Labor's Advisory Council on Employee Welfare and Pension Benefit Plans, the Governor's Task Force on Access to Health Care in Michigan, and various study committees of the Institute of Medicine of the National Academy of Sciences. He is a member of the National Academy of Social Insurance and an adjunct professor of

sociology at Wayne State University. Dr. Hoffman has written and spoken extensively on such issues as the use of prepaid mental health care services and organized labor's perspective on current health care issues and legislation. He received a B.A. in psychology from Otterbein College and M.A. and Ph.D. degrees in sociology from Wayne State University.

Clark E. Kerr

Clark E. Kerr is vice president of quality improvement at Health Excellence, a not-for-profit public benefit corporation. He is also president of the California Business Group on Health, where he manages the legislative agenda. In addition, he chairs the California Health Policy and Data Advisory Commission, and the Consumer Experience Studies Committee of the Health Benefits Advisory Council for CalPERS. Mr. Kerr serves on the board of directors of the National Committee for Quality Assurance, where he co-chairs several committees. Before joining Health Excellence, he held various positions at Bank of America, including vice president of government relations, manager of corporate health programs, and manager of benefits planning. Mr. Kerr received an M.B.A. from the University of California, Berkeley.

James R. Kimmey

James R. Kimmey is vice president of health sciences and professor of public health at the St. Louis University Medical Center, as well as a professor of community and family medicine at the St. Louis University School of Medicine. In addition, Dr. Kimmey has taught at the University of Wisconsin, Johns Hopkins University, New York University, and Columbia University. He was administrator of the Division of Health Policy and Planning of the state of Wisconsin and executive director of the American Public Health Association in New York and Washington. Dr. Kimmey served as president of the American Health Planning Association (1980-81) and was a member of the board of directors. Former editor of *Health Planning Memorandum* and managing editor of the *American Journal of Public Health*, he has written extensively on health planning and other health policy topics. Dr. Kimmey received B.S., M.S., and M.D. degrees

from the University of Wisconsin and an M.P.H. from the University of California.

David A. Kindig

David A. Kindig is director of Programs in Health Management and professor of preventive medicine at the University of Wisconsin-Madison School of Medicine. He served as vice chancellor for health sciences at the university from 1980 to 1985. Dr. Kindig was director of Montefiore Hospital and Medical Center (1976-80) and deputy director of the Bureau of Health Manpower, Department of Health, Education, and Welfare (1974-76). He is on the board of the Association of University Programs in Health Administration and the Association for Health Services Research, and is a member of the Council on Graduate Medical Education. Dr. Kindig has also served on the state of Wisconsin's Council for Uninsured Health Care Programs and chaired the Wisconsin Governor's Task Force on AIDS. A member of the editorial board of *Medical Care Review* and *Health Affairs*, Dr. Kindig has written extensively on both medical and health policy issues. He received a B.A. from Carleton College and M.D. and Ph.D. degrees from the University of Chicago School of Medicine.

Judith R. Lave

Judith R. Lave is professor of health economics and co-director of the center for research on health care at the University of Pittsburgh. Along with teaching in both the Departments of Economics and Psychiatry, Dr. Lave holds appointments in the Graduate School of Public Health and the Katz Graduate School of Business. She is a member of the Agency for Health Care Policy and Research's research study section and of the Institute of Medicine's report review committee. Formerly, Dr. Lave was a faculty member at Carnegie-Mellon University. At the Department of Health and Human Services, she was director of the Division of Economic and Quantitative Analysis in the Office of the Deputy Assistant Secretary and director of the Office of Research in the Health Care Financing Administration. A charter member of the Federal government's Senior Executive Service, Dr. Lave is also a member of the Institute of Medicine. She is a past president of the Association for Health Ser-

vices Research and the Foundation for Health Services Research. Dr. Lave has served as a consultant to private and public agencies in both the United States and Canada. In addition, Dr. Lave chaired the technical panel on health and was a member of the expert panel on income and health care for the Advisory Council of Social Security. She received a B.A. from Queen's University in Canada and a Ph.D. in economics from Harvard University.

Larry L. Mathis

Larry L. Mathis has, since 1983, been president and chief executive officer of The Methodist Hospital System in Houston, Texas, which includes 10 member corporations and The Methodist Hospital. Before that, Mr. Mathis held a number of positions at The Methodist Hospital. In addition to chairing the board of trustees of the American Hospital Association and serving on its executive committee, he is governor of the American College of Healthcare Executives. Mr. Mathis is former chairman of both The Greater Houston Hospital Council and the Texas Hospital Association. He is a former member of the administrative board of the Association of American Medical Colleges' Council of Teaching Hospitals and chaired the National Advisory Council on Health Care Technology Assessment from 1985 to 1988. Mr. Mathis was also a consultant to the Ministry of Education and Culture in Brazil and served in the U.S. Army from 1965 to 1970. He received a B.A. in social sciences from Pittsburg State University in Kansas and an M.H.A. from Washington University.

Robert J. Myers

Robert J. Myers was chief actuary of the Social Security Administration from 1947 to 1970 and deputy commissioner of Social Security from 1981 to 1982. Currently, he is a member of the Committee of Actuaries of the United Nations Joint Staff Pension Fund and president of the International Fisheries Commission's Pension Society. Mr. Myers is a trustee for several organizations, including the investment program (mutual funds) of the American Association of Retired Persons, and serves on the boards of advisers of the Seniors Coalition and Studies on Smoking. An active participant in retirement and pension plan issues, Mr.

Myers chaired the Commission on Railroad Retirement Reform (1988-90) and the Railroad Unemployment Compensation Committee (1983-85). He was also executive director of the National Commission on Social Security Reform (1982-83). In addition, Mr. Myers has served as an actuarial consultant to various congressional committees, and as a technical adviser on Social Security and pension programs to numerous foreign countries. He has held several teaching positions and has published on the topics of Social Security and retirement. In addition, Mr. Myers is a past president of both the American Academy of Actuaries and the Society of Actuaries. He received a B.S. degree from Lehigh University, an M.S. degree from the University of Iowa, and honorary degrees from Lehigh University and Muhlenberg College.

Donald R. Oder

Donald R. Oder is executive vice president and chief operating officer of Rush-Presbyterian-St. Luke's Medical Center in Chicago, where he formerly was senior vice president. Before that, he was audit manager with Arthur Andersen & Co., in Chicago. Mr. Oder has held various academic appointments and currently is a professor in the Department of Health Systems Management at the Rush University College of Health Sciences. He is a member of and has held leadership positions in several professional associations, including the American College of Healthcare Executives, the American Hospital Association, the Illinois Hospital Association, Voluntary Hospitals of America, the American Institute of Certified Public Accountants, and the Illinois C.P.A. Society. He has served on the board of directors of the Better Business Bureau of Metropolitan Chicago, Inc., and on the occupational health committee of the Chicago Association of Commerce and Industry. Mr. Oder received a B.S. from Wichita State University, a C.P.A. certificate from the University of Illinois, and an M.B.A. from the University of Chicago.

Elliott C. Roberts, Sr.

Elliott C. Roberts, Sr., is chief executive officer of the Medical Center of Louisiana at New Orleans (formerly Charity Hospital at New Orleans), a position he has held since 1984. In this capacity, he

assisted in the implementation of the reorganization of the Louisiana State Department of Health and Human Resources, which ultimately became the Louisiana Health Care Authority. Mr. Roberts holds an assistant professorship in the Department of Public Health and Preventive Medicine at Louisiana State University Medical School. He is also a preceptor in the Department of Health Systems Management at Tulane University School of Public Health and Tropical Medicine. From 1980 to 1984, Mr. Roberts was chief executive officer of Cook County Hospital in Chicago. Before that, he was vice president and associate project director for Hyatt Medical Management Services, as well as commissioner of hospitals and executive director of Detroit General Hospital. Mr. Roberts served as executive director at both Harlem Hospital Center (1969-72) and Mercy Douglass Hospital in Philadelphia (1965-69). An active member of the American Hospital Association (AHA), Mr. Roberts served on its board of trustees for five years as well as on the nominating committee, House of Delegates, and in other capacities. He is currently chairman of the Metropolitan Hospital Constituency Section of the AHA. Mr. Roberts has held similar positions of responsibility at the National Association of Public Hospitals and the Association of American Medical Colleges/Council on Teaching Hospitals. In addition to many other appointments, Mr. Roberts served on the Secretary's Commission on Nursing, Department of Health and Human Services. He received an M.A. in business administration-hospital administration from the George Washington University.

J. Michael Sadaj

J. Michael Sadaj is a physician in private practice and a member of Rocky Mountain Clinic in Butte, Montana, where he specializes in internal medicine and pulmonary diseases. He has served as secretary-treasurer, vice president, and president of St. James Community Hospital medical staff, as well as chief of the department of medicine, and as chairman of the credentialing committee. From 1979 to 1990, Dr. Sadaj was medical director of respiratory therapy and the pulmonary laboratory at St. James. For several years, Dr. Sadaj served on the Occupational Diseases Board of the State of Montana. He is a past president of the Montana Medical Association (1988-89) and has been a

member of the executive committee since 1985. In addition, he has served as a delegate to the American Medical Association Resident Physician Section, Young Physician Section, and the AMA House of Delegates. From 1977 to 1979, he was the resident member on the AMA Council on Constitution and Bylaws. He is a founding member of the board of directors of the Montana Professional Assistance Program, and was a member of the Rural Physician Retention Trust Fund Advisory Board. In 1984, he was elected to the Butte-Silver Bow Government Study Commission. From 1974 to 1979, Dr. Sadaj was a resident in internal medicine and a fellow in pulmonary diseases at the University of Nebraska Medical Center. Dr. Sadaj received B.S. and M.D. degrees from the University of Nebraska Medical Center.

J. B. Silvers

J. B. Silvers is director of the Health Systems Management Center of Case Western Reserve University. He is also the William M. and Elizabeth C. Treuhaft Professor of Finance at the university's Weatherhead School of Management, and professor of epidemiology and biostatistics at the School of Medicine. Before joining Case Western Reserve, Dr. Silvers was a faculty member at the business schools of Indiana, Harvard, and Stanford. At Harvard, he directed the Program for Financial Management and Strategy in Health for five years and served on the faculty of the Program for Health Systems Management for 10 years. Dr. Silvers served the Department of Health and Human Services as a member of the Secretary's Commission on Nursing and as a member of the Health Care Technology Study Section of the National Center for Health Services Research (now the Agency for Health Care Policy and Research). During 1983-84, he chaired the Governor's Commission on Ohio Health Care Costs. He has written extensively in the fields of corporate financial management, and health care and hospital finance. Recently, his research has focused on hospital capital, nursing labor, and return to work after hospitalization. He also serves as a consultant or adviser to numerous private organizations and as a member of the boards of a large not-for-profit dialysis center and a point-of-service health plan. Dr. Silvers received a Ph.D. in finance from Stanford University, and M.S. and B.S. degrees from

Purdue University in industrial administration and engineering, respectively.

Roxane B. Spitzer-Lehmann

Roxane B. Spitzer-Lehmann is national adviser to MEDICUS Systems and president of her own consulting firm. Previously, she was corporate vice president of St. Joseph Health System in Orange, California, which includes eight acute care hospitals, a health maintenance organization, a general and professional liability insurance company, and a home health agency. She holds various professorships at Texas Tech University Health Sciences Center; University of Southern California; University of California, Los Angeles; the Graduate School of Business at the University of Colorado, Denver; and Vanderbilt University. From 1981 to 1988, Dr. Spitzer-Lehmann was vice president, patient care services at Cedars-Sinai Medical Center. Previously, she was director of nursing at several hospitals and was a nurse in both inpatient and public health settings. She is a fellow of the American Academy of Nursing and serves on the American Nurses Association task force, the Ad Hoc Nurse Executive Committee of the American College of Healthcare Executives, and many other advisory boards. Dr. Spitzer-Lehmann has written and spoken extensively on such issues as managing nonprofit organizations, cost containment, quality and productivity, nursing in the 1990s, and nursing leadership. She received a B.S. from Adelphi University, an M.A. in service administration from Columbia University, and both an M.A. in management and an M.B.A. from Claremont Graduate School. She holds a Ph.D. in management from the Peter Drucker Management Center, Claremont Graduate School.

Jae L. Wittlich

Jae L. Wittlich is senior vice president and chief operating officer, group benefits, CNA Insurance Companies. He also served as vice president of the group benefits department from 1985 to 1990 and as vice president of the group operations division from 1977 to 1985. Before joining CNA Insurance, Mr. Wittlich was with Allstate for 12 years, most recently as assistant vice president of group life and health operations. Besides being a member of the

executive committee and board of directors of the Association of Private Pension and Welfare Plans, he serves on the board of directors of the CNA Insurance Companies; Private Healthcare Systems, Inc.; the Foundation for Health Enhancement; and the Health Insurance Association of America. In addition, Mr. Wittlich has served on many other

industry association committees and lectured frequently on health care topics. He received the 1990 Health Insurance Association of America's Founders Medal. Mr. Wittlich is a fellow of the Society of Actuaries and a member of the American Academy of Actuaries. He holds B.A. and M.A. degrees from the University of Michigan.

Appendix D. Statutory Mandate of the Commission

Congress established the Prospective Payment Assessment Commission (ProPAC) in Public Law 98-21 (the Social Security Amendments of 1983) on April 20, 1983. The current responsibilities of ProPAC are set forth in sections 1862(a) and 1886 of the Social Security Act. Further responsibilities are set forth in various Acts and conference reports. Below are the passages of the relevant legislative sources, as amended through 1992.

Section 1886(d) of the Social Security Act

(4)(C)(i) The Secretary shall adjust the classifications and weighting factors established under subparagraphs (A) and (B) [DRG classifications], for discharges in fiscal year 1988 and at least annually thereafter, to reflect changes in treatment patterns, technology, and other factors which may change the relative use of hospital resources.

(ii) For discharges in fiscal year 1990, the Secretary shall reduce the weighting factor for each diagnosis-related group by 1.22 percent.

(iii) Any such adjustment under clause (i) for discharges in a fiscal year (beginning with fiscal year 1991) shall be made in a manner that assures that the aggregate payments under this subsection for discharges in the fiscal year are not greater or less than those that would have been made for discharges in the year without such adjustment.

(iv) The Secretary shall include recommendations with respect to adjustments to weighting factors under clause (i) in the annual report to Congress required under subsection (e)(3)(B).

Section 1886(e)(2) through (6) of the Social Security Act

(2)(A) The Director of the Congressional Office of Technology Assessment (hereinafter in this subsection referred to as the "Director" and the "Office," respectively) shall provide for appointment of a Prospective Payment Assessment Commission (hereinafter in this subsection referred to

as the "Commission"), to be composed of independent experts appointed by the Director (without regard to the provisions of title 5, United States Code, governing appointments in the competitive service). The Commission shall review the applicable percentage increase factor described in subsection (b)(3)(B) and make recommendations to the [Congress] on the appropriate percentage change which should be effected for hospital inpatient discharges under subsections (b) and (d) for fiscal years beginning with fiscal year 1986. In making its recommendations, the Commission shall take into account changes in the hospital market-basket described in subsection (b)(3)(B), hospital productivity, technological and scientific advances, the quality of health care provided in hospitals (including the quality and skill level of professional nursing required to maintain quality care), and long-term cost-effectiveness in the provision of inpatient hospital services.

(B) In order to promote the efficient and effective delivery of high-quality health care services, the Commission shall, in addition to carrying out its functions under subparagraph (A), study and make recommendations for each fiscal year regarding changes in each existing reimbursement policy under this title under which payments to an institution are based upon prospectively determined rates and the development of new institutional reimbursement policies under this title, including recommendations related to payments during such fiscal year under the prospective payment system established under this section for determining payments for the operating costs of inpatient hospital services, including changes in the number of diagnosis-related groups used to classify inpatient hospital discharges under subsection (d), adjustments to such groups to reflect severity of illness, and changes in the methods by which hospitals are reimbursed for capital-related costs, together with general recommendations on the effectiveness and quality of health care delivery systems in the United States and the effects on such systems of institutional reimbursements under this title.

(C) By not later than June 1 of each year, the Commission shall submit a report to Congress containing an examination of issues affecting health care delivery in the United States, including issues relating to—

- (i) trends in health care costs;
- (ii) the financial condition of hospitals and the effect of the level of payments made to hospitals under this title on such condition;
- (iii) trends in the use of health care services; and
- (iv) new methods used by employers, insurers, and others to constrain growth in health care costs.

(3)(A) The Commission, not later than March 1 before the beginning of each fiscal year (beginning with fiscal year 1986) shall report its recommendations to Congress on an appropriate change factor which should be used for inpatient hospital services in that fiscal year, together with its general recommendations under paragraph (2)(B) regarding the effectiveness and quality of health care delivery systems in the United States.

(B) The Secretary, not later than April 1, 1987, for fiscal year 1988 and not later than March 1, before the beginning of each fiscal year (beginning with fiscal year 1989), shall report to the Congress the Secretary's initial estimate of the percentage change that the Secretary will recommend under paragraph (4) with respect to that fiscal year.

(4)(A) Taking into consideration the recommendations of the Commission, the Secretary shall recommend for each fiscal year (beginning with fiscal year 1988) an appropriate change factor for inpatient hospital services for discharges in that fiscal year which will take into account amounts necessary for the efficient and effective delivery of medically appropriate and necessary care of high quality. The appropriate change factor may be different for all large urban subsection (d) hospitals, other urban subsection (d) hospitals, urban subsection (d) Puerto Rico hospitals, rural subsection (d) hospitals, and rural subsection (d) Puerto Rican hospitals, and all other hospitals and units not paid under subsection (d), and may vary among such other hospitals and units.

(B) In addition to the recommendation made under subparagraph (A), the Secretary shall, taking into consideration the recommendations of the Commission under paragraph (2)(B), recommend for each fiscal year (beginning with fiscal year 1992) other appropriate changes in each existing reimbursement policy under this title under which payments to an institution are based upon prospectively determined rates.

(5) The Secretary shall cause to have published in the *Federal Register*, not later than—

(A) the May 1 before each fiscal year (beginning with fiscal year 1986), the Secretary's proposed recommendations under paragraph (4) for that fiscal year for public comment, and

(B) the September 1 before such fiscal year after such consideration of public comment on the proposal as is feasible in the time available, the Secretary's final recommendations under such paragraph for that year.

The Secretary shall include in the publication referred to in subparagraph (A) for a fiscal year the report of the Commission's recommendations submitted under paragraph (3) for that fiscal year. To the extent that the Secretary's recommendations under paragraph (4) differ from the Commission's recommendations for that fiscal year, the Secretary shall include in the publication referred to in subparagraph (A) an explanation of the Secretary's grounds for not following the Commission's recommendations.

(6)(A) The Commission shall consist of 17 individuals. Members of the Commission shall first be appointed no later than April 1, 1984, for a term of three years, except that the Director may provide initially for such shorter terms as will insure that (on a continuing basis) the terms of no more than seven members may expire in any one year.

(B) The membership of the Commission shall include individuals with national recognition for their expertise in health economics, hospital reimbursement, hospital financial management, and other related fields, who provide a mix of different professional, broad geographic representation, and a balance between urban and rural representatives, including physicians and registered professional

nurses, employers, third party payors, individuals skilled in the conduct and interpretation of biomedical, health services, and health economics research, and individuals having expertise in the research and development of technological and scientific advances in health care.

(C) Subject to such review as the Office deems necessary to assure the efficient administration of the Commission, the Commission may—

(i) employ and fix the compensation of an Executive Director (subject to the approval of the Director of the Office) and such other personnel (not to exceed 25) as may be necessary to carry out its duties (without regard to the provisions of the title 5, United States Code, governing appointments in the competitive service);

(ii) seek such assistance and support as may be required in the performance of its duties from appropriate Federal departments and agencies;

(iii) enter into contracts or make other arrangements, as may be necessary for the conduct of the work of the Commission (without regard to section 3709 of the Revised Statutes (41 U.S.C. 5));

(iv) make advance, progress, and other payments which relate to the work of the Commission;

(v) provide transportation and subsistence for persons serving without compensation; and

(vi) prescribe such rules and regulations as it deems necessary with respect to the internal organization and operation of the Commission.

Section 10(a)(1) of the Federal Advisory Committee Act shall not apply to any portion of a Commission meeting if the Commission, by majority vote, determines that such portion of such meeting should be closed.

(D) While serving on the business of the Commission (including travel-time), a member of the Commission shall be entitled to compensation at the per diem equivalent of the rate provided for level IV of the Executive Schedule under section 5315 of title 5, United States Code; and while so serving away from home and his regular place of business, a member may be allowed travel

expenses, as authorized by the Chairman of the Commission. Physicians serving as personnel of the Commission may be provided a physician comparability allowance by the Commission in the same manner as Government physicians may be provided such an allowance by an agency under section 5948 of title 5, United States Code, and for such purpose subsection (i) of such section shall apply to the Commission in the same manner as it applies to the Tennessee Valley Authority. For purposes of pay (other than pay of members of the Commission) and employment benefits, rights, and privileges, all personnel of the Commission shall be treated as if they were employees of the United States Senate.

(E) In order to identify medically appropriate patterns of health resources use in accordance with paragraph (2), the Commission shall collect and assess information on medical and surgical procedures and services, including information on regional variations of medical practice and lengths of hospitalization and on other patient-care data, giving special attention to treatment patterns for conditions which appear to involve excessively costly or inappropriate services not adding to the quality of care provided. In order to assess the safety, efficacy, and cost-effectiveness of new and existing medical and surgical procedures, the Commission shall, in coordination to the extent possible with the Secretary, collect and assess factual information, giving special attention to the needs of updating existing diagnosis-related groups, establishing new diagnosis-related groups, and making recommendations on relative weighting factors for such groups to reflect appropriate differences in resource consumption in delivering safe, efficacious, and cost-effective care. In collecting and assessing information, the Commission shall—

(i) utilize existing information, both published and unpublished, where possible, collected and assessed either by its own staff or under other arrangements made in accordance with this paragraph;

(ii) carry out, award grants or contracts for, original research and experimentation, including clinical research, where existing information is inadequate for the development of useful and valid guidelines by the Commission; and

(iii) adopt procedures allowing any interested party to submit information with respect to medical

and surgical procedures and services (including new practices, such as the use of new technologies and treatment modalities), which information the Commission shall consider in making reports and recommendations to the Secretary and Congress.

(F) The Commission shall have access to such relevant information and data as may be available from appropriate Federal agencies and shall assure that its activities, especially the conduct of original research and medical studies, are coordinated with the activities of Federal agencies.

(G)(i) The Office shall have unrestricted access to all deliberations, records, and data of the Commission, immediately upon its request.

(ii) In order to carry out its duties under this paragraph, the Office is authorized to expend reasonable and necessary funds as mutually agreed upon by the Office and the Commission. The Office shall be reimbursed for such funds by the Commission from the appropriations made with respect to the Commission.

(H) The Commission shall be subject to periodic audit by the General Accounting Office.

(I)(i) There are authorized to be appropriated such sums as may be necessary to carry out the provision of this paragraph.

(ii) Eighty-five percent of such appropriation shall be payable from the Federal Hospital Insurance Trust Fund, and 15 percent of such appropriation shall be payable from the Federal Supplementary Medical Insurance Trust Fund.

(J) The Commission shall submit requests for appropriations in the same manner as the Office submits requests for appropriations, but amounts appropriated for the Commission shall be separate from amounts appropriated for the Office.

Section 1862(a) of the Social Security Act

(a) Notwithstanding any other provision of this title, no payment may be made under part A or part B for any expenses incurred for items or services—

(1)(A) which, except for items and services described in a succeeding subparagraph, are not reasonable and necessary for the diagnosis or treat-

ment of illness or injury or to improve the functioning of a malformed body member,

(B) in the case of items and services described in section 1861(s)(10), which are not reasonable and necessary for the prevention of illness,

(C) in the case of hospice care, which are not reasonable and necessary for the palliation or management of terminal illness,

(D) in the case of clinical care items and services provided with the concurrence of the Secretary and with respect to research and experimentation conducted by, or under contract with, the Prospective Payment Assessment Commission or the Secretary, which are not reasonable and necessary to carry out the purposes of section 1886(e)(6), . . .

Section 1135(d) of the Social Security Act

(6)(A) The Secretary shall develop a model system for the payment for outpatient hospitals services other than ambulatory surgery.

(B) The Secretary shall submit to Congress a report on the model payment system under subparagraph (A) by January 1, 1991.

(7) The Secretary shall solicit the views of the Prospective Payment Assessment Commission in developing the systems under paragraphs (1) and (6), and shall include in the Secretary's reports under this subsection any views the Commission may submit with respect to such systems.

Section 9114 of the Consolidated Omnibus Budget Reconciliation Act of 1985, Pub. L. 99-272

(a) Disclosure of Information.—The Secretary of Health and Human Services shall make available to the Prospective Payment Assessment Commission, the Congressional Budget Office, and the Congressional Research Service the most current information on the payments being made under section 1886 of the Social Security Act to individual hospitals. Such information shall be made available in a manner that permits examination of the impact of such section on such hospitals.

(b) Confidentiality.—Information disclosed under subsection (a) shall be treated as confidential

and shall not be subject to further disclosure in a manner that permits the identification of individual hospitals.

**Section 6003(i) of the Omnibus Budget Reconciliation Act of 1989, Pub. L. 101-239:
Legislative Proposal Eliminating Separate
Average Standardized Amounts**

(1) In General.—The Secretary of Health and Human Services (hereafter referred to as the “Secretary”) shall design a legislative proposal eliminating the system of determining separate standardized amounts for subsection (d) hospitals (as defined in section 1886(d)(1)(B) of the Social Security Act) classified as being located in large urban, other urban, or rural areas under section 1886(d)(2)(D) of such Act, and shall include in such proposal the following—

(A) A transition period beginning in fiscal year 1992 during which a single rate for determining payment to hospitals in all areas shall be phased in with such single rate to be completely in effect by fiscal year 1995.

(B) Recommendations, where appropriate, for modifying or maintaining additional payments or adjustments under title XVIII of the Social Security Act for teaching hospitals, rural referral centers, sole community hospitals, disproportionate share hospitals, and outlier cases, and for creating additional payments or adjustments where deemed appropriate by the Secretary.

(C) Recommendations with respect to recalculating standardized amounts to reflect information from more recent cost reporting periods.

(D) Recommendations, where appropriate, for modifying reimbursement for hospitals that are not subsection (d) hospitals under title XVIII of such Act.

(E) A recommendation for a methodology to reflect the severity of illness of different patients within the same diagnosis related group (as determined in section 1886(d)(4)(B) of such Act).

(2) Report to Congress and ProPAC.—(A) Not later than October 1, 1990, the Secretary shall

submit the proposal described in paragraph (1) and an accompanying analysis of the impact of the proposed elimination of separate average standardized amounts on various categories of hospitals to Congress and the Prospective Payment Assessment Commission.

(B) Not later than February 1, 1991, the Prospective Payment Assessment Commission and the Director of the Congressional Budget Office shall each prepare and submit to Congress a report analyzing the legislative proposal submitted under subparagraph (A), and shall include in such report an analysis of the probable impact of such legislation on hospitals participating in the Medicare program.

**Section 6003(j) of the Omnibus Budget Reconciliation Act of 1989, Pub. L. 101-239:
ProPac Study of Payments to Rural Sole
Community Hospitals and Small Rural
Hospitals**

(1) Study.— The Prospective Payment Assessment Commission (hereinafter referred to as the “Commission”) shall conduct a study of the feasibility and desirability of—

(A) using a cost-based reimbursement system to determine the amount of payments to be made under the Medicare program to small rural hospitals and rural sole community hospitals for the operating costs of inpatient hospital services;

(B) developing and applying alternative definitions of market share for use in determining the eligibility of hospitals for classification as sole community hospitals under section 1886(d)(5) of the Social Security Act; and

(C) developing and applying a method for accounting for decreases in the number of inpatients served in determining payment to small rural hospitals under section 1886(d) of the Social Security Act for the operating costs of inpatient hospital services.

(2) Report.—By not later than May 1, 1990, the Commission shall submit a report to Congress on the study conducted under paragraph (1).

Section 6011 of the Omnibus Budget Reconciliation Act of 1989, Pub. L. 101-239
Pass Through Payments for Hemophilia Inpatients

(a) Pass Through Payment for Hemophilia Inpatients.—The second sentence of section 1886(a)(4) of the Social Security Act . . . is amended to read as follows—

For purposes of this section, the term “operating cost of inpatient hospital services” . . . does not include . . . costs with respect to administering blood clotting factors to individual with hemophilia.

(b) Determining Payment Amount.—The Secretary of Health and Human Services shall determine the amount of payment made to hospitals under part A of title XVIII of the Social Security Act for the costs of administering blood clotting factors to individuals with hemophilia by multiplying a predetermined price per unit of blood clotting factor (determined in consultation with the Prospective Payment Assessment Commission) by the number of units provided to the individual.

(c) Recommendations on Payments.—The Prospective Payment Assessment Commission and the Health Care Financing Administration shall develop recommendations with respect to payments under part A of title XVIII of the Social Security Act for the costs of administering blood clotting factors to individuals with hemophilia, and shall submit such recommendations to Congress not later than 18 months after the date of enactment of this Act.

Section 6137 of the Omnibus Budget Reconciliation Act of 1989, Pub. L. 101-239:
ProPAC Study of Payments for Services in Hospital Outpatient Departments

(a) In General.—The Prospective Payment Assessment Commission shall conduct a study on payment under title XVIII of the Social Security Act for hospital outpatient services. Such study shall include an examination of—

(1) the sources of growth in spending for hospital outpatient services;

(2) the differences between the costs of delivering services in a hospital outpatient department as opposed to providing similar services in other appropriate settings (including ambulatory surgery centers and physician offices);

(3) the effects on outpatient hospital costs of the step-down method used to allocate hospital capital between inpatient and outpatient departments and the extent to which hospital outpatient costs were affected by the implementation of the prospective payment system of payment for inpatient hospital services and by increased review of such services by peer review organizations; and

(4) alternative methods for reimbursing hospitals for services in outpatient departments under the Medicare program, including prospective payment methods, fee schedules, and other such methods as the Commission may consider appropriate.

(b) Reports.—(1) By not later than July 1, 1990, the Commission shall submit a report to Congress on the study conducted under section (a) with respect to the portions of the study described in paragraphs (1), (2), and (3) of such subsection, and shall include in the report such recommendations as the Commission deems appropriate.

(2) By not later than March 1, 1991, the Commission shall submit a report to Congress on the study conducted under subsection (a) with respect to the portion of the study described in paragraph (4) of such subsection, and shall include such recommendations as the Commission deems appropriate.

Section 4002(d)(2) of the Omnibus Budget Reconciliation Act of 1990, Pub. L. 101-508:
Study of the Area Wage Index Adjustments Based on Professional Occupational Component

(A) Study.—The Prospective Payment Assessment Commission shall examine available data from States and other sources measuring earnings and paid hours of employment of hospital workers by occupational category, and shall include in such examination an analysis of the impact of variation in occupational mix on the computation of the area wage index determined under section 1886(d)(3)(E) of the Social Security Act.

(B) Report to Congress.—In its March 1991 report, the Commission shall include recommendations regarding the feasibility and desirability of modifying such area wage index to take into account occupational mix, including variations in occupational mix resulting from differences in State codes and requirements.

Section 4002(g)(4) of the Omnibus Budget Reconciliation Act of 1990, Pub. L. 101-508: ProPAC Study of Medicaid Payments to Hospitals

(A) Study.—The Prospective Payment Assessment Commission shall conduct a study of hospital payment rates under State plans for medical assistance under title XIX of the Social Security Act, and shall specifically examine in such study the relationship between payments under such plans and payments made to hospitals under title XVIII of such Act, and the financial condition of hospitals receiving payments under such plans, with particular attention to hospitals in urban areas which treat large number of individuals eligible for medical assistance under title XIX of such Act and other low-income individuals.

(B) Report.—By not later than October 1, 1991, the Commission shall submit a report to Congress on the study conducted under subparagraph (A) and shall include in such report such recommendations relating to requirements for payments to hospitals under title XIX of such Act as the Commission deems appropriate.

Section 4005(b) of the of the Omnibus Budget Reconciliation Act of 1990, Pub. L. 101-508: Development of National Prospective Payment Rates for Current Non-PPS Hospitals

(1) Development of Proposal.—The Secretary of Health and Human Services shall develop a proposal to modify the current system under which hospitals that are not subsection (d) hospitals (as defined in section 1886(d)(1)(B) of the Social Security Act) receive payment for the operating and capital-related costs of inpatient hospital services under part A of the Medicare program or a proposal to replace such system with a system under which such payments would be made on the

basis of nationally-determined average standardized amounts. In developing any proposal under this paragraph to replace the current system with a prospective payment system, the Secretary shall—

(A) take into consideration the need to provide for appropriate limits on increases in expenditures under the Medicare program;

(B) provide for adjustments to prospectively determined rates to account for changes in a hospital's case mix, severity of illness of patients, volume of cases, and the development of new technologies and standards of medical practice;

(C) take into consideration the need to increase the payment otherwise made under such system in the case of services provided to patients whose length of stay or costs of treatment greatly exceed the length of stay or cost of treatment provided for under the applicable prospectively determined payment rate;

(D) take into consideration the need to adjust payments under the system to take into account factors such as a disproportionate share of low-income patients, costs related to graduate medical education programs, differences in wages and wage-related costs among hospitals located in various geographic areas, and other factors the Secretary considers appropriate, and

(E) provide for the appropriate allocation of operating and capital-related costs of hospitals not subject to the new prospective payment system and distinct units of such hospitals that would be paid under such system.

(2) Report.—(A) By not later than April 1, 1992, the Secretary shall submit the proposal developed under paragraph (1) to the Committee on Finance of the Senate and the Committee on Ways and Means of the House of Representatives.

(B) By not later than June 1, 1992, the Prospective Payment Assessment Commission shall submit an analysis of and comments on the proposal developed under paragraph (1) to the Committee on Finance of the Senate and the Committee on Ways and Means of the House of Representatives.

Section 4008(k) of the Omnibus Budget Reconciliation Act of 1990, Pub. L. 101-508: Prospective Payment System for Skilled Nursing Facilities

(1) Development of Proposal.—The Secretary of Health and Human Services shall develop a proposal to modify the current system under which skilled nursing facilities receive payment for extended care services under part A of the Medicare program or a proposal to replace such system with a system under which such payments would be made on the basis of prospectively determined rates. In developing any proposal under this paragraph to replace the current system with a prospective payment system, the Secretary shall—

(A) take into consideration the need to provide for appropriate limits on increases in expenditures under the Medicare program without jeopardizing access to extended care services for individuals unable to care for themselves;

(B) provide for adjustments to prospectively determined rates to account for changes in a facility's case mix, volume of cases, and the development of new technologies and standards of medical practice;

(C) take into consideration the need to increase the payment otherwise made under such system in the case of services provided to patients whose length of stay or costs of treatment greatly exceed the length of stay or cost of treatment provided for under the applicable prospectively determined payment rate;

(D) take into consideration the need to adjust payments under the system to take into account factors such as a disproportionate share of low-income patients, differences in wages and wage-related costs among facilities located in various geographic areas, and other factors the Secretary considers appropriate; and

(E) take into consideration the appropriateness of classifying patients and payments upon functional disability, cognitive impairment, and other patient characteristics.

(2) Reports.—(A) By not later than April 1, 1991, the Secretary (acting through the Administrator of

the Health Care Financing Administration) shall submit any research studies to be used in developing the proposal under paragraph (1) to the Committee on Finance of the Senate and the Committee on Ways and Means of the House of Representatives.

(B) By not later than September 1, 1991, the Secretary shall submit the proposal developed under paragraph (1) to the Committee on Finance of the Senate and the Committee on Ways and Means of the House of Representatives.

(C) By not later than March 1, 1992, the Prospective Payment Assessment Commission shall submit an analysis of and comments on the proposal developed under paragraph (1) to the Committee on Finance of the Senate and the Committee on Ways and Means of the House of Representatives.

Section 4151(b)(2) of the Omnibus Budget Reconciliation Act of 1990, Pub. L. 101-508: Prospective Payment System for Hospital Outpatient Services

(A) Development of Proposal.—The Secretary of Health and Human Services shall develop a proposal to replace the current system under which payment is made for hospital outpatient services under title XVIII of the Social Security Act with a system under which such payments would be made on the basis of prospectively determined rates. In developing any proposal under this paragraph, the Secretary shall consider—

(i) the need to provide for appropriate limits on increases in expenditures under the Medicare program;

(ii) the need to adjust prospectively determined rates to account for changes in a hospital's outpatient case mix, severity of illness of patients, volume of cases, and the development of new technologies and standards of medical practice;

(iii) providing hospitals with incentives to control the costs of providing outpatient services;

(iv) the feasibility and appropriateness of including payment for outpatient services not currently paid on a cost-related basis under the Medicare

program (including clinical diagnostic laboratory tests and dialysis services) in the system;

(v) the need to increase payments under the system to hospitals that treat a disproportionate share of low-income patients, teaching hospitals, and hospitals located in geographic areas with high wages and wage-related costs;

(vi) the feasibility and appropriateness of bundling services into larger units, such as episodes or visits, in establishing the basic unit for making payments under the system; and

(vii) the feasibility and appropriateness of varying payments under the system on the basis of whether services are provided in a free-standing or hospital-based facility.

(B) Reports.—(i) By not later than January 1, 1991, the Administrator of the Health Care Financing Administration shall submit research findings relating to prospective payments for hospital outpatient services to the Committee on Finance of the Senate and the Committees on Ways and Means and Energy and Commerce of the House of Representatives.

(ii) By not later than September 1, 1991, the Secretary shall submit the proposal developed under subparagraph (A) to such Committees.

(iii) By not later than March 1, 1992, the Prospective Payment Assessment Commission shall submit an analysis of and comments on the proposal developed under subparagraph (A) to such Committees.

Section 4201(b) of the Omnibus Budget Reconciliation Act of 1990, Pub. L. 101-508: ProPAC Study on ESRD Composite Rates

(1) In General.—(A) Study.—The Prospective Payment Assessment Commission (in this subsection referred to as the “Commission”) shall conduct a study to determine the costs and services and profits associated with various modalities of dialysis treatments provided to end stage renal disease patients provided under title XVIII of the Social Security Act.

(B) Recommendations.—Based on information collected for the study described in subparagraph

(A), the Commission shall make recommendations to Congress regarding the method or methods and the levels at which the payments made for the facility component of dialysis services by providers of service and renal dialysis facilities under title XVIII of the Social Security Act should be established for dialysis services furnished during fiscal year 1993 and the methodology to be used to update such payments for subsequent fiscal years. In making recommendations concerning the appropriate methodology the Commission shall consider—

(i) hemodialysis and other modalities of treatment,

(ii) the appropriate services to be included in such payments,

(iii) the adjustment factors to be incorporated including facility characteristics, such as hospital versus free-standing facilities, urban versus rural, size and mix of services,

(iv) adjustments for labor and non-labor costs,

(v) comparative profit margins for all types of renal dialysis providers of service and renal dialysis facilities,

(vi) adjustments for patient complexity, such as age, diagnosis, case mix, and pediatric services, and

(vii) efficient costs related to high quality of care and positive outcomes for all treatment modalities.

(2) Report.—Not later than June 1, 1992, the Commission shall submit a report to the Committee on Finance of the Senate, and the Committees on Ways and Means and Energy and Commerce of the House of Representatives on the study conducted under paragraph (1)(A) and shall include in the report the recommendations described in paragraph (1)(B), taking into account the factors described in paragraph (1)(B).

(3) Annual Report.—The Commission, not later than March 1 before the beginning of each fiscal year (beginning with fiscal year 1993) shall report its recommendations to the Committee on Finance of the Senate and the Committees on Ways and

Means and Energy and Commerce of the House of Representatives on an appropriate change factor which should be used for updating payments for services rendered in that fiscal year. The Commission in making such report to Congress shall consider conclusions and recommendations available from the Institute of Medicine.

**Section 4207(c) of the Omnibus Budget Reconciliation Act of 1990, Pub. L. 101-508:
Development of Prospective Payment System for Home Health Services**

(1) Development of Proposal.—The Secretary of Health and Human Services shall develop a proposal to modify the current system under which payment is made for home health services under title XVIII of the Social Security Act or a proposal to replace such system with a system under which such payments would be made on the basis of prospectively determined rates. In developing any proposal under this paragraph to replace the current system with a prospective payment system, the Secretary shall—

(A) take into consideration the need to provide for appropriate limits on increases in expenditures under the Medicare program;

(B) provide for adjustments to prospectively determined rates to account for changes in a provider's case mix, severity of illness of patients, volume of cases, and the development of new technologies and standards of medical practice;

(C) take into consideration the need to increase the payment otherwise made under such system in the case of services provided to patients whose length of treatment or costs of treatment greatly exceed the length or cost of treatment provided for under the applicable prospectively determined payment rate;

(D) take into consideration the need to adjust payments under the system to take into account factors such as differences in wages and wage-related costs among agencies located in various geographic areas and other factors the Secretary considers appropriate; and

(E) analyze the feasibility and appropriateness of establishing the episode of illness as the basic unit for making payments under the system.

(2) Reports.—(A) By not later than April 1, 1993, the Secretary of Health and Human Services shall submit the research findings upon which the proposal described in paragraph (1) shall be based to the Committee on Finance of the Senate and the Committee on Ways and Means of the House of Representatives.

(B) By not later than September 1, 1993, the Secretary shall submit the proposal developed under paragraph (1) to the Committee on Finance of the Senate and the Committee on Ways and Means of the House of Representatives.

(C) By not later than March 1, 1994, the Prospective Payment Assessment Commission shall submit an analysis of and comments on the proposal developed under paragraph (1) to the Committee on Finance of the Senate and the Committee on Ways and Means of the House of Representatives.

**H.R. Rep. No. 964, 101st Cong., 1st Sess.
(1990)**

(Report of the Committee of Conferees, Pub. L. 101-508)

In performing this function [developing and modification of reimbursement policies], the conferees intend that ProPAC would include in its analysis and recommendations, proposals for changes in policies regarding: (1) payment for inner-city hospitals, including appropriate recognition of bad debt and charity care costs; (2) payment for rural hospitals including recommendations on appropriate responses to issues affecting access to health care services in rural areas; and (3) policies which help constrain the costs of health care to employers, including changes in Medicare and its payment policies which may affect other payers.

**S.R. Rep. No. 516, 101st Cong., 2nd Sess.
(1990)**

(Report of the Senate Committee on Appropriations, H.R. 5257)

The Committee, therefore, requests that ProPAC issue a report listing (1) the adjustments that have been made to PPS since its inception (for example changes in standardized amount, outlier pool, consideration of part-time labor); and (2) the amount of increased payments (taking inflation into

account) for PPS years 1-5 and what rural hospitals would have received if these adjustments had been in place from the system's beginning.

In addition, the Committee request that ProPAC in its 1991 report address in detail the impact of less-than-average patient volume on overhead costs and reimbursement, especially on small hospitals. This Committee remains concerned that the PPS system, which is based on averages, inherently is inappropriate to small-volume hospitals.

Given the history of inequitable inpatient payments and the widespread concern over new systems of outpatient payments, the Committee finds it is necessary to investigate whether outpatient payment systems also will be biased against smaller rural providers. The Committee requests that ProPAC in its 1991 report identify all potential outpatient payment biases against small rural hospitals, and recommend actions to correct them.

The Committee is concerned that the Federal Office of Rural Health Policy lacks essential resources such as computer capability in order to fulfill its statutory mandate to provide impact analyses of proposed Medicare and Medicaid regulations. The Committee instructs ProPAC to provide its resources to the Office of Rural Health Policy in order to facilitate these analyses. The Committee expects The Commission to provide technical assistance to the Office of Rural Health Policy.

The Committee urges ProPAC to continue to study the use of nurse practitioners and other non-physician providers in alternative settings to acute care and long-term institutional care.

Section 3(d) of the Medicaid Voluntary Contribution and Provider-Specific Tax Amendments of 1991, Pub. L. 102-234: Study of Medicaid DSH Payment Adjustments

(1) In General.—The Prospective Payment Assessment Commission shall conduct a study concerning—

(A) the feasibility and desirability of establishing maximum and minimum payment adjustments under section 1923(c) of the Social Security Act for hospitals deemed disproportionate share hospitals under State medicaid plans, and

(B) criteria (other than criteria described in clause (i) or (ii) of section 1923(f)(1)(D) of such Act) that are appropriate for the designation of disproportionate share hospitals under section 1923 of such Act.

(2) Items Included In Study.—The Commission shall include in the study—

(A) a comparison of the payment adjustments for hospitals made under such section and the additional payments made under title XVIII of such Act for hospitals serving a significantly disproportionate number of low-income patients under the medicare program; and

(B) an analysis of the effect the establishment of limits on such payment adjustments will have on the ability of the hospitals to be reimbursed for the resource costs incurred by the hospitals in treating individuals entitled to medical assistance under State medicaid plans and other low-income patients.

(3) Report.—Not later than January 1, 1994, the Commission shall submit a report on the study conducted under paragraph (1) to the Committee on Finance of the Senate and the Committee on Energy and Commerce of the House of Representatives. Such report shall include such recommendations respecting the designation of disproportionate share hospitals and the establishment of maximum and minimum payment adjustments for such hospitals under section 1923 of the Social Security Act as may be appropriate.

H.R. Rep. No. 103-213, 103rd Cong., 1st Sess. (1993)

(Report of the Conference Committee, Omnibus Budget Reconciliation Act of 1993, Pub. L. 103-66)

The conferees note that the Prospective Payment Assessment Commission has expressed concern that the Secretary's outlier policy penalizes hospitals that receive a large number of transfer cases. The conferees expect that the Commission will evaluate whether the changes in outlier policy required by this Act will be sufficient to reduce the risk of large losses on transfer cases for such hospitals and make recommendations regarding whether additional changes in payment methodology would be appropriate.



DRG	MDC	TYPE	TITLE	FY 1993 WEIGHT	FY 1994 WEIGHT	PERCENT CHANGE
1	1	SURG	CRANIOTOMY AGE >17 EXCEPT FOR TRAUMA	3.2324	3.1556	-2.4
2	1	SURG	CRANIOTOMY FOR TRAUMA AGE >17	3.1311	3.1381	0.2
3	1	SURG	CRANIOTOMY AGE 0-17	2.9627	3.0176	1.9
4	1	SURG	SPINAL PROCEDURES	2.3612	2.3847	1.0
5	1	SURG	EXTRACRANIAL VASCULAR PROCEDURES	1.5504	1.5361	-0.9
6	1	SURG	CARPAL TUNNEL RELEASE	0.5437	0.6271	15.3
7	1	SURG	PERIPH & CRANIAL NERVE & OTHER NERV SYST PROC WITH CC	2.6363	2.5180	-4.5
8	1	SURG	PERIPH & CRANIAL NERVE & OTHER NERV SYST PROC W/O CC	0.7944	0.8576	8.0
9	1	MED	SPINAL DISORDERS & INJURIES	1.2786	1.3397	4.8
10	1	MED	NERVOUS SYSTEM NEOPLASMS WITH CC	1.2884	1.2819	-0.5
11	1	MED	NERVOUS SYSTEM NEOPLASMS W/O CC	0.7649	0.7691	0.5
12	1	MED	DEGENERATIVE NERVOUS SYSTEM DISORDERS	0.9550	0.9449	-1.1
13	1	MED	MULTIPLE SCLEROSIS & CEREBELLAR ATAXIA	0.8336	0.8108	-2.7
14	1	MED	SPECIFIC CEREBROVASCULAR DISORDERS EXCEPT TIA	1.2160	1.2056	-0.9
15	1	MED	TRANSIENT ISCHEMIC ATTACK & PRECEREBRAL OCCLUSIONS	0.8662	0.6766	-21.9
16	1	MED	NONSPECIFIC CEREBROVASCULAR DISORDERS W CC	1.1086	1.1141	0.5
17	1	MED	NONSPECIFIC CEREBROVASCULAR DISORDERS W/O CC	0.6424	0.6648	3.5
18	1	MED	CRANIAL & PERIPHERAL NERVE DISORDERS WITH CC	0.9170	0.9202	0.3
19	1	MED	CRANIAL & PERIPHERAL NERVE DISORDERS W/O CC	0.5958	0.5927	-0.5
20	1	MED	NERVOUS SYSTEM INFECTION EXCEPT VIRAL MENINGITIS	2.0042	2.0613	2.8
21	1	MED	VIRAL MENINGITIS	1.4505	1.4304	-1.4
22	1	MED	HYPERTENSIVE ENCEPHALOPATHY	0.7261	0.7286	0.3
23	1	MED	NONTRAUMATIC STUPOR & COMA	0.8202	0.8407	2.5
24	1	MED	SEIZURE & HEADACHE AGE >17 WITH CC	0.9714	0.9759	0.5
25	1	MED	SEIZURE & HEADACHE AGE >17 W/O CC	0.5282	0.5426	2.7
26	1	MED	SEIZURE & HEADACHE AGE 0-17	1.0516	0.9878	-6.1
27	1	MED	TRAUMATIC STUPOR & COMA, COMA >1 HR	1.3744	1.3311	-3.2
28	1	MED	TRAUMATIC STUPOR & COMA, COMA <1 HR AGE >17 WITH CC	1.2208	1.2078	-1.1
29	1	MED	TRAUMATIC STUPOR & COMA, COMA <1 HR AGE >17 W/O CC	0.5885	0.5941	1.0
30	1	MED	TRAUMATIC STUPOR & COMA, COMA <1 HR AGE 0-17	0.3593	0.3660	1.9
31	1	MED	CONCUSSION AGE >17 WITH CC	0.7707	0.7335	-4.8
32	1	MED	CONCUSSION AGE >17 W/O CC	0.4454	0.4494	0.9

Appendix E. Change in DRG Relative Weights from Fiscal Year 1993 to Fiscal Year 1994

DRG	MDC	TYPE	TITLE	FY 1993 WEIGHT	FY 1994 WEIGHT	PERCENT CHANGE
33	1	MED	CONCUSSION AGE 0-17	0.2494	0.2540	1.8
34	1	MED	OTHER DISORDERS OF NERVOUS SYSTEM WITH CC	1.1442	1.1103	-3.0
35	1	MED	OTHER DISORDERS OF NERVOUS SYSTEM W/O CC	0.5590	0.5656	1.2
36	2	SURG	RETINAL PROCEDURES	0.6238	0.6087	-2.4
37	2	SURG	ORBITAL PROCEDURES	0.7883	0.7843	-0.5
38	2	SURG	PRIMARY IRIS PROCEDURES	0.3584	0.3716	3.7
39	2	SURG	LENS PROCEDURES WITH OR WITHOUT VITRECTOMY	0.4858	0.4723	-2.8
40	2	SURG	EXTRAOCULAR PROCEDURES EXCEPT ORBIT AGE >17	0.5150	0.5586	8.5
41	2	SURG	EXTRAOCULAR PROCEDURES EXCEPT ORBIT AGE 0-17	0.3713	0.3782	1.9
42	2	SURG	INTRAOCULAR PROCEDURES RETINA, IRIS & LENS	0.5968	0.5777	-3.2
43	2	MED	HYPHEMA	0.4026	0.3814	-5.3
44	2	MED	ACUTE MAJOR EYE INFECTIONS	0.5767	0.5949	3.2
45	2	MED	NEUROLOGICAL EYE DISORDERS	0.5989	0.6047	1.0
46	2	MED	OTHER DISORDERS OF THE EYE AGE >17 W CC	0.7217	0.7288	1.0
47	2	MED	OTHER DISORDERS OF THE EYE AGE >17 W/O CC	0.4156	0.4047	-2.6
48	2	MED	OTHER DISORDERS OF THE EYE AGE 0-17	0.4079	0.4155	1.9
49	3	SURG	MAJOR HEAD & NECK PROCEDURES	1.6029	1.7937	11.9
50	3	SURG	SIALOADENECTOMY	0.6594	0.6732	2.1
51	3	SURG	SALIVARY GLAND PROCEDURES EXCEPT SIALOADENECTOMY	0.6278	0.6515	3.8
52	3	SURG	CLEFT LIP & PALATE REPAIR	0.7859	0.7697	-2.1
53	3	SURG	SINUS & MASTOID PROCEDURES AGE >17	0.7237	0.7645	5.6
54	3	SURG	SINUS & MASTOID PROCEDURES AGE 0-17	0.6994	0.7124	1.9
55	3	SURG	MISCELLANEOUS EAR, NOSE, MOUTH & THROAT PROCEDURES	0.5469	0.5761	5.3
56	3	SURG	RHINOPLASTY	0.6168	0.6412	4.0
57	3	SURG	T&A PROC, EXCEPT TONSILLECTOMY &/OR ADENOIDECTOMY ONLY, AGE >17	0.8845	0.9116	3.1
58	3	SURG	T&A PROC, EXCEPT TONSILLECTOMY &/OR ADENOIDECTOMY ONLY, AGE 0-17	0.3145	0.3203	1.8
59	3	SURG	TONSILLECTOMY &/OR ADENOIDECTOMY ONLY, AGE >17	0.4273	0.4158	-2.7
60	3	SURG	TONSILLECTOMY &/OR ADENOIDECTOMY ONLY, AGE 0-17	0.2655	0.2704	1.8
61	3	SURG	MYRINGOTOMY W TUBE INSERTION AGE >17	0.8613	1.0307	19.7
62	3	SURG	MYRINGOTOMY W TUBE INSERTION AGE 0-17	0.3136	0.3194	1.8
63	3	SURG	OTHER EAR, NOSE, MOUTH & THROAT O.R. PROCEDURES	1.0429	1.0520	0.9
64	3	MED	EAR, NOSE, MOUTH & THROAT MALIGNANCY	1.1039	1.1571	4.8

DRG	MDC	TYPE	TITLE	FY 1993 WEIGHT	FY 1994 WEIGHT	PERCENT CHANGE
65	3	MED	DYSEQUILIBRIUM	0.4922	0.4952	0.6
66	3	MED	EPISTAXIS	0.4885	0.4909	0.5
67	3	MED	EPIGLOTTITIS	0.8424	0.8481	0.7
68	3	MED	OTITIS MEDIA & URI AGE >17 WITH CC	0.7216	0.7158	-0.8
69	3	MED	OTITIS MEDIA & URI AGE >17 W/O CC	0.5000	0.5126	2.5
70	3	MED	OTITIS MEDIA & URI AGE 0-17	0.6126	0.3978	-35.1
71	3	MED	LARYNGOTRACHEITIS	0.7664	0.6838	-10.8
72	3	MED	NASAL TRAUMA & DEFORMITY	0.5844	0.6079	4.0
73	3	MED	OTHER EAR, NOSE, MOUTH & THROAT DIAGNOSES AGE >17	0.7522	0.7591	0.9
74	3	MED	OTHER EAR, NOSE, MOUTH & THROAT DIAGNOSES AGE 0-17	0.3480	0.3545	1.9
75	4	SURG	MAJOR CHEST PROCEDURES	3.0400	3.0397	-0.0
76	4	SURG	OTHER RESP SYSTEM O.R. PROCEDURES W CC	2.3973	2.4770	3.3
77	4	SURG	OTHER RESP SYSTEM O.R. PROCEDURES W/O CC	1.0208	1.0443	2.3
78	4	MED	PULMONARY EMBOLISM	1.4350	1.4292	-0.4
79	4	MED	RESPIRATORY INFECTIONS & INFLAMMATIONS AGE >17 WITH CC	1.7510	1.7332	-1.0
80	4	MED	RESPIRATORY INFECTIONS & INFLAMMATIONS AGE >17 W/O CC	0.9617	0.9278	-3.5
81	4	MED	RESPIRATORY INFECTIONS & INFLAMMATIONS AGE 0-17	1.1200	1.1408	1.9
82	4	MED	RESPIRATORY NEOPLASMS	1.2809	1.3105	2.3
83	4	MED	MAJOR CHEST TRAUMA WITH CC	0.9490	0.9403	-0.9
84	4	MED	MAJOR CHEST TRAUMA W/O CC	0.4783	0.4986	4.2
85	4	MED	PLEURAL EFFUSION WITH CC	1.1969	1.1891	-0.7
86	4	MED	PLEURAL EFFUSION W/O CC	0.6711	0.6691	-0.3
87	4	MED	PULMONARY EDEMA & RESPIRATORY FAILURE	1.3597	1.3495	-0.8
88	4	MED	CHRONIC OBSTRUCTIVE PULMONARY DISEASE	0.9941	1.0067	1.3
89	4	MED	SIMPLE PNEUMONIA & PLEURISY AGE >17 WITH CC	1.1581	1.1447	-1.2
90	4	MED	SIMPLE PNEUMONIA & PLEURISY AGE >17 W/O CC	0.7090	0.6990	-1.4
91	4	MED	SIMPLE PNEUMONIA & PLEURISY AGE 0-17	0.7985	0.7767	-2.7
92	4	MED	INTERSTITIAL LUNG DISEASE WITH CC	1.1975	1.2039	0.5
93	4	MED	INTERSTITIAL LUNG DISEASE W/O CC	0.7723	0.7550	-2.2
94	4	MED	PNEUMOTHORAX WITH CC	1.2774	1.2433	-2.7
95	4	MED	PNEUMOTHORAX W/O CC	0.5973	0.6067	1.6
96	4	MED	BRONCHITIS & ASTHMA AGE >17 WITH CC	0.9369	0.8776	-6.3

Appendix E. Change in DRG Relative Weights from Fiscal Year 1993 to Fiscal Year 1994

DRG	MDC	TYPE	TITLE	FY 1993 WEIGHT	FY 1994 WEIGHT	PERCENT CHANGE
97	4	MED	BRONCHITIS & ASTHMA AGE >17 W/O CC	0.6191	0.6067	-2.0
98	4	MED	BRONCHITIS & ASTHMA AGE 0-17	0.8924	0.6840	-23.4
99	4	MED	RESPIRATORY SIGNS & SYMPTOMS WITH CC	0.7623	0.7149	-6.2
100	4	MED	RESPIRATORY SIGNS & SYMPTOMS W/O CC	0.5049	0.5004	-0.9
101	4	MED	OTHER RESPIRATORY SYSTEM DIAGNOSES WITH CC	0.9135	0.9035	-1.1
102	4	MED	OTHER RESPIRATORY SYSTEM DIAGNOSES W/O CC	0.5426	0.5282	-2.7
103	5	SURG	HEART TRANSPLANT	12.5568	14.0215	11.7
104	5	SURG	CARDIAC VALVE PROCEDURE & W CARDIAC CATH	7.7521	7.6559	-1.2
105	5	SURG	CARDIAC VALVE PROCEDURE & W/O CARDIAC CATH	5.8291	5.7990	-0.5
106	5	SURG	CORONARY BYPASS W CARDIAC CATH	5.6583	5.6791	0.4
107	5	SURG	CORONARY BYPASS W/O CARDIAC CATH	4.2348	4.2005	-0.8
108	5	SURG	OTHER CARDIOTHORACIC PROCEDURES	5.8725	5.8690	-0.1
109	.	.	NO LONGER VALID	NV	NV	NV
110	5	SURG	MAJOR CARDIOVASCULAR PROCEDURES WITH CC	4.0823	4.0494	-0.8
111	5	SURG	MAJOR CARDIOVASCULAR PROCEDURES W/O CC	2.2979	2.3214	1.0
112	5	SURG	PERCUTANEOUS CARDIOVASCULAR PROCEDURES	1.9874	1.9736	-0.7
113	5	SURG	AMPUTATION FOR CIRC SYSTEM DISORDERS EXCEPT UPPER LIMB & TOE	2.7789	2.7931	0.5
114	5	SURG	UPPER LIMB & TOE AMPUTATION FOR CIRC SYSTEM DISORDER	1.5957	1.5631	-2.0
115	5	SURG	PERM CARDIAC PACEMAKER IMPLANT W AMI, HEART FAILURE OR SHOCK	3.6092	3.5886	-0.6
116	5	SURG	OTHER PERM CARDIAC PACEMAKER IMPLANT OR AICD LEAD OR GEN PROC	2.4604	2.4248	-1.4
117	5	SURG	CARDIAC PACEMAKER REVISION EXCEPT DEVICE REPLACEMENT	1.2264	1.1328	-7.6
118	5	SURG	CARDIAC PACEMAKER DEVICE REPLACEMENT	1.5858	1.5419	-2.8
119	5	SURG	VEIN LIGATION & STRIPPING	0.9650	0.9834	1.9
120	5	SURG	OTHER CIRCULATORY SYSTEM O.R. PROCEDURES	1.9906	1.9626	-1.4
121	5	MED	CIRCULATORY DISORDERS W AMI & C.V. COMP DISCH ALIVE	1.6114	1.6017	-0.6
122	5	MED	CIRCULATORY DISORDERS W AMI W/O C.V. COMP DISCH ALIVE	1.1532	1.1325	-1.8
123	5	MED	CIRCULATORY DISORDERS W AMI, EXPIRED	1.4090	1.4116	0.2
124	5	MED	CIRCULATORY DISORDERS EXCEPT AMI, W CARD CATH & COMPLEX DIAG	1.2029	1.2307	2.3
125	5	MED	CIRCULATORY DISORDERS EXCEPT AMI, W CARD CATH W/O COMPLEX DIAG	0.7587	0.7960	4.9
126	5	MED	ACUTE & SUBACUTE ENDOCARDITIS	2.8464	2.7299	-4.1
127	5	MED	HEART FAILURE & SHOCK	1.0150	1.0234	0.8
128	5	MED	DEEP VEIN THROMBOPHLEBITIS	0.7873	0.7825	-0.6

Appendix E. Change in DRG Relative Weights from Fiscal Year 1993 to Fiscal Year 1994

DRG	MDC	TYPE	TITLE	FY 1993 WEIGHT	FY 1994 WEIGHT	PERCENT CHANGE
129	5	MED	CARDIAC ARREST, UNEXPLAINED	1.2831	1.1959	-6.8
130	5	MED	PERIPHERAL VASCULAR DISORDERS WITH CC	0.9106	0.9042	-0.7
131	5	MED	PERIPHERAL VASCULAR DISORDERS W/O CC	0.5861	0.5831	-0.5
132	5	MED	ATHEROSCLEROSIS WITH CC	0.7591	0.7594	0.0
133	5	MED	ATHEROSCLEROSIS W/O CC	0.5312	0.5257	-1.0
134	5	MED	HYPERTENSION	0.5655	0.5614	-0.7
135	5	MED	CARDIAC CONGENITAL & VALVULAR DISORDERS AGE >17 WITH CC	0.8625	0.8609	-0.2
136	5	MED	CARDIAC CONGENITAL & VALVULAR DISORDERS AGE > 17 W/O CC	0.5266	0.5489	4.2
137	5	MED	CARDIAC CONGENITAL & VALVULAR DISORDERS AGE 0-17	0.6411	0.6530	1.9
138	5	MED	CARDIAC ARRHYTHMIA & CONDUCTION DISORDERS WITH CC	0.8110	0.8038	-0.9
139	5	MED	CARDIAC ARRHYTHMIA & CONDUCTION DISORDERS W/O CC	0.5020	0.4946	-1.5
140	5	MED	ANGINA PECTORIS	0.6219	0.6241	0.4
141	5	MED	SYNCOPE & COLLAPSE WITH CC	0.6998	0.7053	0.8
142	5	MED	SYNCOPE & COLLAPSE W/O CC	0.5048	0.5150	2.0
143	5	MED	CHEST PAIN	0.5164	0.5189	0.5
144	5	MED	OTHER CIRCULATORY SYSTEM DIAGNOSES W CC	1.0650	1.0659	0.1
145	5	MED	OTHER CIRCULATORY SYSTEM DIAGNOSES W/O CC	0.6240	0.6122	-1.9
146	6	SURG	RECTAL RESECTION WITH CC	2.5394	2.4955	-1.7
147	6	SURG	RECTAL RESECTION W/O CC	1.5192	1.5328	0.9
148	6	SURG	MAJOR SMALL & LARGE BOWEL PROCEDURES WITH CC	3.1353	3.1719	1.2
149	6	SURG	MAJOR SMALL & LARGE BOWEL PROCEDURES W/O CC	1.4948	1.5127	1.2
150	6	SURG	PERITONEAL ADHESIOLYSIS WITH CC	2.5484	2.5505	0.1
151	6	SURG	PERITONEAL ADHESIOLYSIS W/O CC	1.1885	1.1738	-1.2
152	6	SURG	MINOR SMALL & LARGE BOWEL PROCEDURES WITH CC	1.7736	1.7955	1.2
153	6	SURG	MINOR SMALL & LARGE BOWEL PROCEDURES W/O CC	1.0426	1.0821	3.8
154	6	SURG	STOMACH, ESOPHAGEAL & DUODENAL PROCEDURES AGE >17 WITH CC	4.0491	4.1338	2.1
155	6	SURG	STOMACH, ESOPHAGEAL & DUODENAL PROCEDURES AGE >17 W/O CC	1.4617	1.3811	-5.5
156	6	SURG	STOMACH, ESOPHAGEAL & DUODENAL PROCEDURES AGE 0-17	0.8510	0.8668	1.9
157	6	SURG	ANAL & STOMAL PROCEDURES WITH CC	0.9575	1.0048	4.9
158	6	SURG	ANAL & STOMAL PROCEDURES W/O CC	0.4975	0.5100	2.5
159	6	SURG	HERNIA PROCEDURES EXCEPT INGUINAL & FEMORAL AGE >17 WITH CC	1.0747	1.0901	1.4
160	6	SURG	HERNIA PROCEDURES EXCEPT INGUINAL & FEMORAL AGE >17 W/O CC	0.6168	0.6378	3.4

Appendix E. Change in DRG Relative Weights from Fiscal Year 1993 to Fiscal Year 1994

DRG	MDC	TYPE	TITLE	FY 1993 WEIGHT	FY 1994 WEIGHT	PERCENT CHANGE
161	6	SURG	INGUINAL & FEMORAL HERNIA PROCEDURES AGE >17 WITH CC	0.7820	0.8260	5.6
162	6	SURG	INGUINAL & FEMORAL HERNIA PROCEDURES AGE >17 W/O CC	0.4651	0.4823	3.7
163	6	SURG	HERNIA PROCEDURES AGE 0-17	0.4843	0.6795	40.3
164	6	SURG	APPENDECTOMY W COMPLICATED PRINCIPAL DIAG WITH CC	2.1607	2.1679	0.3
165	6	SURG	APPENDECTOMY W COMPLICATED PRINCIPAL DIAG W/O CC	1.2080	1.2055	-0.2
166	6	SURG	APPENDECTOMY W/O COMPLICATED PRINCIPAL DIAG WITH CC	1.3251	1.3413	1.2
167	6	SURG	APPENDECTOMY W/O COMPLICATED PRINCIPAL DIAL W/O CC	0.7495	0.7801	4.1
168	3	SURG	MOUTH PROCEDURES WITH CC	0.9902	1.0321	4.2
169	3	SURG	MOUTH PROCEDURES W/O CC	0.5788	0.5824	0.6
170	6	SURG	OTHER DIGESTIVE SYSTEM O.R. PROCEDURES WITH CC	2.7310	2.7524	0.8
171	6	SURG	OTHER DIGESTIVE SYSTEM O.R. PROCEDURES W/O CC	1.0898	1.0894	0.0
172	6	MED	DIGESTIVE MALIGNANCY WITH CC	1.2990	1.3063	0.6
173	6	MED	DIGESTIVE MALIGNANCY W/O CC	0.6346	0.6318	-0.4
174	6	MED	G.I. HEMORRHAGE WITH CC	0.9794	0.9657	-1.4
175	6	MED	G.I. HEMORRHAGE W/O CC	0.5506	0.5354	-2.8
176	6	MED	COMPLICATED PEPTIC ULCER	1.0331	1.0453	1.2
177	6	MED	UNCOMPLICATED PEPTIC ULCER WITH CC	0.7931	0.7986	0.7
178	6	MED	UNCOMPLICATED PEPTIC ULCER W/O CC	0.5720	0.5804	1.5
179	6	MED	INFLAMMATORY BOWEL DISEASE	1.1044	1.1072	0.3
180	6	MED	G.I. OBSTRUCTION WITH CC	0.9279	0.9180	-1.1
181	6	MED	G.I. OBSTRUCTION W/O CC	0.5007	0.4969	-0.8
182	6	MED	ESOPHAGITIS, GASTROENT & MISC DIGEST DISORDERS AGE >17 WITH CC	0.7721	0.7617	-1.3
183	6	MED	ESOPHAGITIS, GASTROENT & MISC DIGEST DISORDERS AGE >17 W/O CC	0.5296	0.5291	-0.1
184	6	MED	ESOPHAGITIS, GASTROENT & MISC DIGEST DISORDERS AGE 0-17	0.5625	0.4735	-15.8
185	3	MED	DENTAL & ORAL DIS EXCEPT EXTRACTIONS & RESTORATIONS, AGE >17	0.7854	0.8248	5.0
186	3	MED	DENTAL & ORAL DIS EXCEPT EXTRACTIONS & RESTORATIONS, AGE >17	0.4174	0.4251	1.8
187	3	MED	DENTAL EXTRACTIONS & RESTORATIONS	0.5650	0.5852	3.6
188	6	MED	OTHER DIGESTIVE SYSTEM DIAGNOSES AGE >17 WITH CC	0.9971	1.0050	0.8
189	6	MED	OTHER DIGESTIVE SYSTEM DIAGNOSES AGE >17 W/O CC	0.4804	0.4775	-0.6
190	6	MED	OTHER DIGESTIVE SYSTEM DIAGNOSES AGE 0-17	0.6796	0.7577	11.5
191	7	SURG	PANCREAS, LIVER & SHUNT PROCEDURES WITH CC	4.4652	4.3319	-3.0
192	7	SURG	PANCREAS, LIVER & SHUNT PROCEDURES W/O CC	1.7051	1.6460	-3.5

Appendix E. Change in DRG Relative Weights from Fiscal Year 1993 to Fiscal Year 1994

DRG	MDC	TYPE	TITLE	FY 1993 WEIGHT	FY 1994 WEIGHT	PERCENT CHANGE
193	7	SURG	BILIARY TRACT PROC W CC EXCEPT ONLY CHOLECYST W OR W/O C.D.E.	3.0376	3.0940	1.9
194	7	SURG	BILIARY TRACT PROC W/O CC EXCEPT ONLY CHOLECYST W OR W/O C.D.E.	1.6333	1.5991	-2.1
195	7	SURG	CHOLECYSTECTOMY W C.D.E. WITH CC	2.2744	2.4066	5.8
196	7	SURG	CHOLECYSTECTOMY W C.D.E. W/O CC	1.4039	1.5073	7.4
197	7	SURG	CHOLECYSTECTOMY EXCEPT BY LAPAROSCOPE, W/O C.D.E., WITH CC	1.6916	2.0082	18.7
198	7	SURG	CHOLECYSTECTOMY EXCEPT BY LAPAROSCOPE, W/O C.D.E., W/O CC	0.8757	1.0432	19.1
199	7	SURG	HEPATOBIILIARY DIAGNOSTIC PROCEDURE FOR MALIGNANCY	2.3376	2.3557	0.8
200	7	SURG	HEPATOBIILIARY DIAGNOSTIC PROCEDURE FOR NON-MALIGNANCY	2.7205	2.8054	3.1
201	7	SURG	OTHER HEPATOBIILIARY OR PANCREAS O.R. PROCEDURES	2.5221	3.1526	25.0
202	7	MED	CIRRHOSIS & ALCOHOLIC HEPATITIS	1.2996	1.3176	1.4
203	7	MED	MALIGNANCY OF HEPATOBIILIARY SYSTEM OR PANCREAS	1.2158	1.2180	0.2
204	7	MED	DISORDERS OF PANCREAS EXCEPT MALIGNANCY	1.1158	1.1302	1.3
205	7	MED	DISORDERS OF LIVER EXCEPT MALIG, CIRR, ALC HEPA WITH CC	1.2249	1.2470	1.8
206	7	MED	DISORDERS OF LIVER EXCEPT MALIG, CIRR, ALC HEPA W/OCC	0.6113	0.6181	1.1
207	7	MED	DISORDERS OF THE BILIARY TRACT WITH CC	0.9814	0.9896	0.8
208	7	MED	DISORDERS OF THE BILIARY TRACT W/O CC	0.5564	0.5521	-0.8
209	8	SURG	MAJOR JOINT & LIMB REATTACHMENT PROCEDURES-LOWER EXTREMITY	2.3686	2.3491	-0.8
210	8	SURG	HIP & FEMUR PROCEDURES EXCEPT MAJOR JOINT AGE >17 WITH CC	1.9077	1.8702	-2.0
211	8	SURG	HIP & FEMUR PROCEDURES EXCEPT MAJOR JOINT AGE >17 W/O CC	1.3307	1.3031	-2.1
212	8	SURG	HIP & FEMUR PROCEDURES EXCEPT MAJOR JOINT AGE 0-17	1.0345	1.4486	40.0
213	8	SURG	AMPUTATION FOR MUSCULOSKELETAL SYSTEM & CONN TISSUE DISORDERS	1.7686	1.7485	-1.1
214	8	SURG	BACK & NECK PROCEDURES WITH CC	1.8686	1.8857	0.9
215	8	SURG	BACK & NECK PROCEDURES W/O CC	1.0905	1.0926	0.2
216	8	SURG	BIOPSIES OF MUSCULOSKELETAL SYSTEM & CONNECTIVE TISSUE	2.0429	2.0570	0.7
217	8	SURG	WND DEBRID & SKIN GRAFT EXCEPT HAND, FOR MUSCSKELET & CONN TISS DIS	3.0601	3.0563	-0.1
218	8	SURG	LOWER EXTREM & HUMER PROC EXCEPT HIP, FOOT, FEMUR AGE >17 WITH	1.4186	1.4195	0.1
219	8	SURG	LOWER EXTREM & HUMER PROC EXCEPT HIP, FOOT, FEMUR AGE >17 W/O C	0.8956	0.9015	0.7
220	8	SURG	LOWER EXTREM & HUMER PROC EXCEPT HIP, FOOT, FEMUR AGE 0-17	0.9382	0.9556	1.9
221	8	SURG	KNEE PROCEDURES WITH CC	1.7828	1.7992	0.9
222	8	SURG	KNEE PROCEDURES W/O CC	0.9544	0.9846	3.2
223	8	SURG	MAJOR SHOULDER/ELBOW PROC, OR OTHER UPPER EXTREMITY PROC W CC	0.8087	0.8126	0.5
224	8	SURG	SHOULDER, ELBOW OR FOREARM PROC, EXC MAJOR JOINT PROC W/O CC	0.6538	0.6698	2.4

Appendix E. Change in DRG Relative Weights from Fiscal Year 1993 to Fiscal Year 1994

DRG	MDC	TYPE	TITLE	FY 1993 WEIGHT	FY 1994 WEIGHT	PERCENT CHANGE
225	8	SURG	FOOT PROCEDURES	0.8212	0.8568	4.3
226	8	SURG	SOFT TISSUE PROCEDURES WITH CC	1.3241	1.3096	-1.1
227	8	SURG	SOFT TISSUE PROCEDURES W/O CC	0.6767	0.6866	1.5
228	8	SURG	MAJOR THUMB OR JOINT PROC, OR OTH HAND OR WRIST PROC W CC	0.7961	0.8225	3.3
229	8	SURG	HAND OR WRIST PROC, EXCEPT MAJOR JOINT PROC, W/O CC	0.5539	0.5679	2.5
230	8	SURG	LOCAL EXCISION & REMOVAL OF INT FIX DEVICES OF HIP & FEMUR	0.9179	0.9353	1.9
231	8	SURG	LOCAL EXCISION & REMOVAL OF INT FIX DEVICES EXCEPT HIP & FEMUR	1.1044	1.1159	1.0
232	8	SURG	ARTHROSCOPY	1.1792	1.1082	-6.0
233	8	SURG	OTHER MUSCULOSKELET SYS & CONN TISS O.R. PROC WITH CC	1.8579	1.8454	-0.7
234	8	SURG	OTHER MUSCULOSKELET SYS & CONN TISS O.R. PROC W/O CC	0.8957	0.9321	4.1
235	8	MED	FRACTURES OF FEMUR	1.0209	0.9730	-4.7
236	8	MED	FRACTURES OF HIP & PELVIS	0.8128	0.7922	-2.5
237	8	MED	SPRAINS, STRAINS, & DISLOCATIONS OF HIP, PELVIS & THIGH	0.5496	0.5536	0.7
238	8	MED	OSTEOMYELITIS	1.5435	1.5082	-2.3
239	8	MED	PATHOLOGICAL FRACTURES & MUSCULOSKELETAL & CONN TISS MALIGNANCY	1.0415	1.0388	-0.3
240	8	MED	CONNECTIVE TISSUE DISORDERS WITH CC	1.1468	1.1488	0.2
241	8	MED	CONNECTIVE TISSUE DISORDERS W/O CC	0.5782	0.5682	-1.7
242	8	MED	SEPTIC ARTHRITIS	1.1864	1.1356	-4.3
243	8	MED	MEDICAL BACK PROBLEMS	0.6834	0.7011	2.6
244	8	MED	BONE DISEASES & SPECIFIC ARTHROPATHIES WITH CC	0.7353	0.7437	1.1
245	8	MED	BONE DISEASES & SPECIFIC ARTHROPATHIES W/O CC	0.5043	0.4798	-4.9
246	8	MED	NON-SPECIFIC ARTHROPATHIES	0.5706	0.5962	4.5
247	8	MED	SIGNS & SYMPTOMS OF MUSCULOSKELETAL SYSTEM & CONN TISSUE	0.5682	0.5547	-2.4
248	8	MED	TENDONITIS, MYOSITIS & BURSITIS	0.6750	0.6939	2.8
249	8	MED	AFTERCARE, MUSCULOSKELETAL SYSTEM & CONNECTIVE TISSUE	0.6965	0.6638	-4.7
250	8	MED	FX. SPRN, STRN & DISL OF FOREARM, HAND, FOOT AGE >17 WITH CC	0.7047	0.7174	1.8
251	8	MED	FX. SPRN, STRN & DISL OF FOREARM, HAND, FOOT AGE >17 W/O CC	0.4395	0.4449	1.2
252	8	MED	FX. SPRN, STRN & DISL OF FOREARM, HAND, FOOT AGE 0-17	0.3549	0.3615	1.9
253	8	MED	FX. SPRN, STRN & DISL OF UPARM, LOWLEG EX FOOT AGE >17 WITH CC	0.7774	0.7706	-0.9
254	8	MED	FX. SPRN, STRN & DISL OF UPARM, LOWLEG EX FOOT AGE >17 W/O CC	0.4231	0.4272	1.0
255	8	MED	FX. SPRN, STRN & DISL OF UPARM, LOWLEG EX FOOT AGE 0-17	0.4709	0.4796	1.8
256	8	MED	OTHER MUSCULOSKELETAL SYSTEM & CONNECTIVE TISSUE DIAGNOSES	0.8505	0.6366	-25.1

DRG	MDC	TYPE	TITLE	FY 1993 WEIGHT	FY 1994 WEIGHT	PERCENT CHANGE
257	9	SURG	TOTAL MASTECTOMY FOR MALIGNANCY WITH CC	0.8950	0.8845	-1.2
258	9	SURG	TOTAL MASTECTOMY FOR MALIGNANCY W/O CC	0.7002	0.6959	-0.6
259	9	SURG	SUBTOTAL MASTECTOMY FOR MALIGNANCY WITH CC	0.8774	0.8372	-4.6
260	9	SURG	SUBTOTAL MASTECTOMY FOR MALIGNANCY W/O CC	0.5659	0.5743	1.5
261	9	SURG	BREAST PROC FOR NON-MALIGNANCY EXCEPT BIOPSY & LOCAL EXCISION	0.7183	0.7272	1.2
262	9	SURG	BREAST BIOPSY & LOCAL EXCISION FOR NON-MALIGNANCY	0.5345	0.6071	13.6
263	9	SURG	SKIN GRAFT &/OR DEBRID FOR SKIN ULCER OR CELLULITIS WITH CC	2.5403	2.4460	-3.7
264	9	SURG	SKIN GRAFT &/OR DEBRID FOR SKIN ULCER OR CELLULITIS W/O CC	1.2662	1.2346	-2.5
265	9	SURG	SKIN GRAFT &/OR DEBRID EXCEPT FOR SKIN ULCER OR CELLULITIS W CC	1.3939	1.4065	0.9
266	9	SURG	SKIN GRAFT &/OR DEBRID EXCEPT FOR SKIN ULCER OR CELLULITIS W/O	0.6978	0.7108	1.9
267	9	SURG	PERIANAL & PILONIDAL PROCEDURES	0.6245	0.6592	5.6
268	9	SURG	SKIN, SUBCUTANEOUS TISSUE & BREAST PLASTIC PROCEDURES	0.7519	0.8198	9.0
269	9	SURG	OTHER SKIN, SUBCUT TISS & BREAST PROC WITH CC	1.6958	1.7166	1.2
270	9	SURG	OTHER SKIN, SUBCUT TISS & BREAST PROC W/O CC	0.6343	0.6456	1.8
271	9	MED	SKIN ULCERS	1.1970	1.1783	-1.6
272	9	MED	MAJOR SKIN DISORDERS WITH CC	1.0477	1.0206	-2.6
273	9	MED	MAJOR SKIN DISORDERS W/O CC	0.6583	0.6514	-1.0
274	9	MED	MALIGNANT BREAST DISORDERS WITH CC	1.1572	1.1183	-3.4
275	9	MED	MALIGNANT BREAST DISORDERS W/O CC	0.5957	0.5050	-15.2
276	9	MED	NON-MALIGNANT BREAST DISORDERS	0.6085	0.6351	4.4
277	9	MED	CELLULITIS AGE >17 WITH CC	0.9036	0.8917	-1.3
278	9	MED	CELLULITIS AGE >17 W/O CC	0.5941	0.5828	-1.9
279	9	MED	CELLULITIS AGE 0-17	0.7479	0.7618	1.9
280	9	MED	TRAUMA TO THE SKIN, SUBCUT TISS & BREAST AGE >17 WITH CC	0.6807	0.6755	-0.8
281	9	MED	TRAUMA TO THE SKIN SUBCUT TISS & BREAST AGE >17 W/O CC	0.4270	0.4195	-1.8
282	9	MED	TRAUMA TO THE SKIN SUBCUT TISS & BREAST AGE 0-17	0.3476	0.3540	1.8
283	9	MED	MINOR SKIN DISORDERS WITH CC	0.7558	0.7253	-4.0
284	9	MED	MINOR SKIN DISORDERS W/O CC	0.4450	0.4469	0.4
285	10	SURG	AMPUTAT OF LOWER LIMB FOR ENDOC, NUTRIT, & METABOL DISORDERS	2.7519	2.5637	-6.8
286	10	SURG	ADRENAL & PITUITARY PROCEDURES	2.3944	2.2821	-4.7
287	10	SURG	SKIN GRAFTS & WOUNDS DEBRID FOR ENDOC, NUTRIT, & METAB DISORDER	2.1744	2.1927	0.8
288	10	SURG	O.R. PROCEDURES FOR OBESITY	2.0378	2.0725	1.7

Appendix E. Change in DRG Relative Weights from Fiscal Year 1993 to Fiscal Year 1994

DRG	MDC	TYPE	TITLE	FY 1993 WEIGHT	FY 1994 WEIGHT	PERCENT CHANGE
289	10	SURG	PARATHYROID PROCEDURES	1.0252	0.9920	-3.2
290	10	SURG	THYROID PROCEDURES	0.7448	0.7637	2.5
291	10	SURG	THYROID GLAND PROCEDURES	0.4896	0.5074	3.6
292	10	SURG	OTHER ENDOCRINE, NUTRIT & METAB O.R. PROC WITH CC	2.8428	2.7658	-2.7
293	10	SURG	OTHER ENDOCRINE, NUTRIT & METAB O.R. PROC W/O CC	1.1284	1.1010	-2.4
294	10	MED	DIABETES AGE >35	0.7491	0.7466	-0.3
295	10	MED	DIABETES AGE 0-35	0.7721	0.7562	-2.1
296	10	MED	NUTRITIONAL & MISC METABOLIC DISORDERS AGE >17 WITH CC	0.9410	0.9313	-1.0
297	10	MED	NUTRITIONAL & MISC METABOLIC DISORDERS AGE >17 W/O CC	0.5271	0.5244	-0.5
298	10	MED	NUTRITIONAL & MISC METABOLIC DISORDERS AGE 0-17	0.4777	0.5627	17.8
299	10	MED	INBORN ERRORS OF METABOLISM	0.8392	0.8271	-1.4
300	10	MED	ENDOCRINE DISORDERS WITH CC	1.1251	1.0982	-2.4
301	10	MED	ENDOCRINE DISORDERS W/O CC	0.5811	0.5777	-0.6
302	11	SURG	KIDNEY TRANSPLANT	3.8885	3.8871	0.0
303	11	SURG	KIDNEY, URETER & MAJOR BLADDER PROCEDURES FOR NEOPLASM	2.6532	2.5929	-2.3
304	11	SURG	KIDNEY, URETER & MAJOR BLADDER PROC FOR NON-NEOPL WITH CC	2.4103	2.3897	-0.9
305	11	SURG	KIDNEY, URETER & MAJOR BLADDER PROC FOR NON-NEOPL W/O CC	1.1548	1.1127	-3.6
306	11	SURG	PROSTATECTOMY WITH CC	1.2744	1.2474	-2.1
307	11	SURG	PROSTATECTOMY W/O CC	0.6889	0.6620	-3.9
308	11	SURG	MINOR BLADDER PROCEDURES WITH CC	1.4315	1.4452	1.0
309	11	SURG	MINOR BLADDER PROCEDURES W/O CC	0.7287	0.7580	4.0
310	11	SURG	TRANSURETHRAL PROCEDURES WITH CC	0.8880	0.9006	1.4
311	11	SURG	TRANSURETHRAL PROCEDURES W/O CC	0.5153	0.5206	1.0
312	11	SURG	URETHRAL PROCEDURES, AGE >17 WITH CC	0.8082	0.8334	3.1
313	11	SURG	URETHRAL PROCEDURES, AGE >17 W/O CC	0.4623	0.4551	-1.6
314	11	SURG	URETHRAL PROCEDURES, AGE 0-17	0.4389	0.4470	1.8
315	11	SURG	OTHER KIDNEY & URINARY TRACT O.R. PROCEDURES	2.0362	2.0341	-0.1
316	11	MED	RENAL FAILURE	1.2896	1.2903	0.1
317	11	MED	ADMIT FOR RENAL DIALYSIS	0.5075	0.5194	2.3
318	11	MED	KIDNEY & URINARY TRACT NEOPLASMS WITH CC	1.1244	1.1215	-0.3
319	11	MED	KIDNEY & URINARY TRACT NEOPLASMS W/O CC	0.5069	0.5298	4.5
320	11	MED	KIDNEY & URINARY TRACT INFECTIONS AGE >17 WITH CC	0.9807	0.9677	-1.3

DRG	MDC	TYPE	TITLE	FY 1993 WEIGHT	FY 1994 WEIGHT	PERCENT CHANGE
321	11	MED	KIDNEY & URINARY TRACT INFECTIONS AGE >17 W/O CC	0.6252	0.6112	-2.2
322	11	MED	KIDNEY & URINARY TRACT INFECTIONS AGE 0-17	0.6389	0.4952	-22.5
323	11	MED	URINARY STONES WITH CC &/OR ESW LITHOTRIPSY	0.7381	0.7290	-1.2
324	11	MED	URINARY STONES W/O CC	0.3858	0.3864	0.2
325	11	MED	KIDNEY & URINARY TRACT SIGNS & SYMPTOMS AGE >17 WITH CC	0.6551	0.6607	0.9
326	11	MED	KIDNEY & URINARY TRACT SIGNS & SYMPTOMS AGE >17 W/O CC	0.4152	0.4024	-3.1
327	11	MED	KIDNEY & URINARY TRACT SIGNS & SYMPTOMS AGE 0-17	0.7038	0.7169	1.9
328	11	MED	URETHRAL STRICTURE AGE >17 WITH CC	0.6363	0.6597	3.7
329	11	MED	URETHRAL STRICTURE AGE >17 W/O CC	0.4113	0.3881	-5.6
330	11	MED	URETHRAL STRICTURE AGE 0-17	0.2830	0.2882	1.8
331	11	MED	OTHER KIDNEY & URINARY TRACT DIAGNOSES AGE >17 WITH CC	0.9765	0.9829	0.7
332	11	MED	OTHER KIDNEY & URINARY TRACT DIAGNOSES AGE >17 W/O CC	0.5347	0.5430	1.6
333	11	MED	OTHER KIDNEY & URINARY TRACT DIAGNOSES AGE 0-17	0.9590	0.9641	0.5
334	12	SURG	MAJOR MALE PELVIC PROCEDURES W CC	1.7728	1.7535	-1.1
335	12	SURG	MAJOR MALE PELVIC PROCEDURES W/O CC	1.3597	1.3630	0.2
336	12	SURG	TRANSURETHRAL PROSTATECTOMY WITH CC	0.8704	0.8540	-1.9
337	12	SURG	TRANSURETHRAL PROSTATECTOMY W/O CC	0.6066	0.6050	-0.3
338	12	SURG	TESTES PROCEDURES, FOR MALIGNANCY	0.9386	0.9395	0.1
339	12	SURG	TESTES PROCEDURES, NON-MALIGNANCY AGE >17	0.7572	0.8093	6.9
340	12	SURG	TESTES PROCEDURES, NON-MALIGNANCY AGE 0-17	0.4401	0.4483	1.9
341	12	SURG	PENIS PROCEDURES	0.9681	0.9646	-0.4
342	12	SURG	CIRCUMCISION AGE >17	0.5766	0.5848	1.4
343	12	SURG	CIRCUMCISION AGE 0-17	0.3845	0.3916	1.8
344	12	SURG	OTHER MALE REPRODUCTIVE SYSTEM O.R. PROCEDURES FOR MALIGNANCY	1.0568	1.0183	-3.6
345	12	SURG	OTHER MALE REPRODUCTIVE SYSTEM O.R. PROC EXCEPT FOR MALIGNANCY	0.7521	0.7344	-2.4
346	12	MED	MALIGNANCY, MALE REPRODUCTIVE SYSTEM, WITH CC	0.9906	0.9338	-5.7
347	12	MED	MALIGNANCY, MALE REPRODUCTIVE SYSTEM, W/O CC	0.5120	0.4928	-3.8
348	12	MED	BENIGN PROSTATIC HYPERTROPHY WITH CC	0.6815	0.6856	0.6
349	12	MED	BENIGN PROSTATIC HYPERTROPHY W/O CC	0.3952	0.3904	-1.2
350	12	MED	INFLAMMATION OF THE MALE REPRODUCTIVE SYSTEM	0.6707	0.6668	-0.6
351	12	MED	STERILIZATION, MALE	0.3384	0.3447	1.9
352	12	MED	OTHER MALE REPRODUCTIVE SYSTEM DIAGNOSES	0.5801	0.5326	-8.2

Appendix E: Change in DRG Relative Weights from Fiscal Year 1993 to Fiscal Year 1994

DRG	MDC	TYPE	TITLE	FY 1993 WEIGHT	FY 1994 WEIGHT	PERCENT CHANGE
353	13	SURG	PELVIC EVISCERATION, RADICAL HYSTERECTOMY & RADICAL VULVECTOMY	1.9031	1.9624	3.1
354	13	SURG	UTERINE, ADNEXA PROC FOR NON-OVARIAN/ADNEXAL MALIG WITH CC	1.3686	1.3794	0.8
355	13	SURG	UTERINE, ADNEXA PROC FOR NON-OVARIAN/ADNEXAL MALIG W/O CC	0.8493	0.8717	2.6
356	13	SURG	FEMALE REPRODUCTIVE SYSTEM RECONSTRUCTIVE PROCEDURES	0.7030	0.7096	0.9
357	13	SURG	UTERINE & ADNEXA PROC FOR OVARIAN OR ADNEXAL MALIGN	2.3097	2.3153	0.2
358	13	SURG	UTERINE & ADNEXA PROC FOR NON-MALIGNANCY WITH CC	1.1066	1.1042	-0.2
359	13	SURG	UTERINE & ADNEXA PROC FOR NON-MALIGNANCY W/O CC	0.7723	0.7834	1.4
360	13	SURG	VAGINA, CERVIX & VULVA PROCEDURES	0.8024	0.8126	1.3
361	13	SURG	LAPAROSCOPY & INCISIONAL TUBAL INTERRUPTION	0.9767	1.0037	2.8
362	13	SURG	ENDOSCOPIC TUBAL INTERRUPTION	0.5057	0.5151	1.9
363	13	SURG	D&C, CONIZATION & RADIO-IMPLANT, FOR MALIGNANCY	0.6251	0.6340	1.4
364	13	SURG	D&C, CONIZATION EXCEPT FOR MALIGNANCY	0.5659	0.5930	4.8
365	13	SURG	OTHER FEMALE REPRODUCTIVE SYSTEM O.R. PROCEDURES	1.7093	1.7034	-0.3
366	13	MED	MALIGNANCY, FEMALE REPRODUCTIVE SYSTEM WITH CC	1.2158	1.1948	-1.7
367	13	MED	MALIGNANCY, FEMALE REPRODUCTIVE SYSTEM W/O CC	0.4808	0.4769	-0.8
368	13	MED	INFECTIONS, FEMALE REPRODUCTIVE SYSTEM	0.8820	0.9489	7.6
369	13	MED	MENSTRUAL & OTHER FEMALE REPRODUCTIVE SYSTEM DISORDERS	0.5321	0.5201	-2.3
370	14	SURG	CESAREAN SECTION W CC	0.8916	0.8699	-2.4
371	14	SURG	CESAREAN SECTION W/O CC	0.6461	0.6289	-2.7
372	14	MED	VAGINAL DELIVERY W COMPLICATING DIAGNOSES	0.4619	0.5174	12.0
373	14	MED	VAGINAL DELIVERY W/O COMPLICATING DIAGNOSES	0.3182	0.3247	2.0
374	14	SURG	VAGINAL DELIVERY W STERILIZATION &/OR D&C	0.6297	0.5859	-7.0
375	14	SURG	VAGINAL DELIVERY W O.R. PROC EXCEPT STERIL &/OR D&C	0.6921	0.7049	1.8
376	14	MED	POSTPARTUM & POST ABORTION DIAGNOSES W/O O.R. PROCEDURE	0.3247	0.3894	19.9
377	14	SURG	POSTPARTUM & POST ABORTION DIAGNOSES W O.R. PROCEDURE	0.8392	0.8600	2.5
378	14	MED	ECTOPIC PREGNANCY	0.7694	0.7580	-1.5
379	14	MED	THREATENED ABORTION	0.2743	0.3346	22.0
380	14	MED	ABORTION W/O D&C	0.3430	0.2958	-13.8
381	14	SURG	ABORTION W D&C, ASPIRATION CURETTAGE OR HYSTEROTOMY	0.4326	0.3943	-8.9
382	14	MED	FALSE LABOR	0.1486	0.1240	-16.6
383	14	MED	OTHER ANTEPARTUM DIAGNOSES W MEDICAL COMPLICATIONS	0.3947	0.4059	2.8
384	14	MED	OTHER ANTEPARTUM DIAGNOSES W/O MEDICAL COMPLICATIONS	0.2701	0.2620	-3.0

DRG	MDC	TYPE	TITLE	FY 1993 WEIGHT	FY 1994 WEIGHT	PERCENT CHANGE
385	15	MED	NEONATES, DIED OR TRANSFERRED TO ANOTHER ACUTE CARE FACILITY	1.2418	1.2648	1.9
386	15	MED	EXTREME IMMATURITY OR RESPIRATORY DISTRESS SYNDROME, NEONATE	3.7035	3.7722	1.9
387	15	MED	PREMATURITY W MAJOR PROBLEMS	1.8545	1.8889	1.9
388	15	MED	PREMATURITY W/O MAJOR PROBLEMS	1.1747	1.1965	1.9
389	15	MED	FULL TERM NEONATE W MAJOR PROBLEMS	1.4229	1.5295	7.5
390	15	MED	NEONATE W OTHER SIGNIFICANT PROBLEMS	1.1340	0.9165	-19.2
391	15	MED	NORMAL NEWBORN	0.2252	0.2294	1.9
392	16	SURG	SPLENECTOMY AGE >17	3.1287	3.3043	5.6
393	16	SURG	SPLENECTOMY AGE 0-17	1.5437	1.5723	1.9
394	16	SURG	OTHER O.R. PROCEDURES OF THE BLOOD AND BLOOD FORMING ORGANS	1.5966	1.6781	5.1
395	16	MED	RED BLOOD CELL DISORDERS AGE >17	0.7881	0.8057	2.2
396	16	MED	RED BLOOD CELL DISORDERS AGE 0-17	0.6802	0.3079	-54.7
397	16	MED	COAGULATION DISORDERS	1.1905	1.2292	3.3
398	16	MED	RETICULOENDOTHELIAL & IMMUNITY DISORDERS WITH CC	1.2091	1.2431	2.8
399	16	MED	RETICULOENDOTHELIAL & IMMUNITY DISORDERS W/O CC	0.6735	0.6822	1.3
400	17	SURG	LYMPHOMA & LEUKEMIA W MAJOR O.R. PROCEDURE	2.5572	2.5309	-1.0
401	17	SURG	LYMPHOMA & NON-ACUTE LEUKEMIA W OTHER O.R. PROC W CC	2.3497	2.3778	1.2
402	17	SURG	LYMPHOMA & NON-ACUTE LEUKEMIA W OTHER O.R. PROC W/O CC	0.8536	0.8850	3.7
403	17	MED	LYMPHOMA & NON-ACUTE LEUKEMIA W CC	1.6827	1.6757	-0.4
404	17	MED	LYMPHOMA & NON-ACUTE LEUKEMIA W/O CC	0.7428	0.7377	-0.7
405	17	MED	ACUTE LEUKEMIA W/O MAJOR O.R. PROCEDURE AGE 0-17	1.0565	1.0761	1.9
406	17	SURG	MYELOPROLIF DISORD OR POORLY DIFF NEOPL W MAJ O.R. PROC W CC	2.7669	2.6133	-5.6
407	17	SURG	MYELOPROLIF DISORD OR POORLY DIFF NEOPL W MAJ O.R. PROC W/O CC	1.1999	1.1204	-6.6
408	17	SURG	MYELOPROLIF DISORD OR POORLY DIFF NEOPL W OTHER O.R. PROC	1.3279	1.4241	7.2
409	17	MED	RADIOTHERAPY	0.9886	0.9922	0.4
410	17	MED	CHEMOTHERAPY WITHOUT ACUTE LEUKEMIA AS SECONDARY DIAGNOSIS	0.6095	0.6679	9.6
411	17	MED	HISTORY OF MALIGNANCY W/O ENDOSCOPY	0.4256	0.4152	-2.4
412	17	MED	HISTORY OF MALIGNANCY W ENDOSCOPY	0.4257	0.4758	11.8
413	17	MED	OTHER MYELOPROLIF DIS OR POORLY DIFF NEOPL DIAG WITH CC	1.3335	1.3849	3.9
414	17	MED	OTHER MYELOPROLIF DIS OR POORLY DIFF NEOPL DIAG W/O CC	0.6857	0.7091	3.4
415	18	SURG	O.R. PROCEDURE FOR INFECTIOUS & PARASITIC DISEASES	3.5162	3.5723	1.6
416	18	MED	SEPTICEMIA AGE >17	1.5222	1.5141	-0.5

Appendix E. Change in DRG Relative Weights from Fiscal Year 1993 to Fiscal Year 1994

DRG	MDC	TYPE	TITLE	FY 1993 WEIGHT	FY 1994 WEIGHT	PERCENT CHANGE
417	18	MED	SEPTICEMIA AGE 0-17	0.8974	0.7002	-22.0
418	18	MED	POSTOPERATIVE & POST-TRAUMATIC INFECTIONS	0.9679	0.9665	-0.1
419	18	MED	FEVER OF UNKNOWN ORIGIN AGE >17 WITH CC	0.9500	0.9511	0.1
420	18	MED	FEVER OF UNKNOWN ORIGIN AGE >17 W/O CC	0.6510	0.6365	-2.2
421	18	MED	VIRAL ILLNESS AGE >17	0.6882	0.6758	-1.8
422	18	MED	VIRAL ILLNESS & FEVER OF UNKNOWN ORIGIN AGE 0-17	0.7629	0.5888	-22.8
423	18	MED	OTHER INFECTIOUS & PARASITIC DISEASES DIAGNOSES	1.5976	1.6246	1.7
424	19	SURG	O.R. PROCEDURE W PRINCIPAL DIAGNOSES OF MENTAL ILLNESS	2.4058	2.4684	2.6
425	19	MED	ACUTE ADJUST REACT & DISTURBANCES OF PSYCHOSOCIAL DYSFUNCTION	0.7045	0.7127	1.2
426	19	MED	DEPRESSIVE NEUROSES	0.6023	0.6128	1.7
427	19	MED	NEUROSES EXCEPT DEPRESSIVE	0.6322	0.6184	-2.2
428	19	MED	DISORDERS OF PERSONALITY & IMPULSE CONTROL	0.7703	0.7084	-8.0
429	19	MED	ORGANIC DISTURBANCES & MENTAL RETARDATION	0.9460	0.9379	-0.9
430	19	MED	PSYCHOSES	0.9040	0.9153	1.2
431	19	MED	CHILDHOOD MENTAL DISORDERS	0.5980	0.6980	16.7
432	19	MED	OTHER MENTAL DISORDER DIAGNOSES	0.7113	0.7357	3.4
433	20	MED	ALCOHOL/DRUG ABUSE OR DEPENDENCE, LEFT AMA	0.3545	0.3512	-0.9
434	20	MED	ALC/DRUG ABUSE OR DEPENDENCE, DETOX OR OTHER SYMPT TRT WITH CC	0.7494	0.7321	-2.3
435	20	MED	ALC/DRUG ABUSE OR DEPENDENCE, DETOX OR OTHER SYMPT TRT W/O CC	0.4818	0.4529	-6.0
436	20	MED	ALC/DRUG DEPENDENCE W REHABILITATION THERAPY	0.9869	0.9691	-1.8
437	20	MED	ALC/DRUG DEPENDENCE, COMBINED REHAB & DETOX THERAPY	1.0888	0.9970	-8.4
438	.	.	NO LONGER VALID	NV	NV	NV
439	21	SURG	SKIN GRAFTS FOR INJURIES	1.2126	1.3853	14.2
440	21	SURG	WOUND DEBRIDEMENTS FOR INJURIES	1.8359	1.7125	-6.7
441	21	SURG	HAND PROCEDURES FOR INJURIES	0.7321	0.7122	-2.7
442	21	SURG	OTHER O.R. PROCEDURES FOR INJURIES WITH CC	1.9106	1.9292	1.0
443	21	SURG	OTHER O.R. PROCEDURES FOR INJURIES W/O CC	0.7518	0.7398	-1.6
444	21	MED	TRAUMATIC INJURY AGE >17 WITH CC	0.7643	0.7431	-2.8
445	21	MED	TRAUMATIC INJURY AGE >17 W/O CC	0.4649	0.4635	-0.3
446	21	MED	TRAUMATIC INJURY AGE 0-17	0.4869	0.4959	1.8
447	21	MED	ALLERGIC REACTIONS AGE >17	0.4919	0.4869	-1.0
448	21	MED	ALLERGIC REACTIONS AGE 0-17	0.3523	0.3588	1.8

DRG	MDC	TYPE	TITLE	FY 1993 WEIGHT	FY 1994 WEIGHT	PERCENT CHANGE
449	21	MED	POISONING & TOXIC EFFECTS OF DRUGS AGE >17 WITH CC	0.7889	0.7929	0.5
450	21	MED	POISONING & TOXIC EFFECTS OF DRUGS AGE >17 W/O CC	0.4325	0.4224	-2.3
451	21	MED	POISONING & TOXIC EFFECTS OF DRUGS AGE 0-17	0.5268	1.0266	94.9
452	21	MED	COMPLICATIONS OF TREATMENT WITH CC	0.8550	0.8232	-3.7
453	21	MED	COMPLICATIONS OF TREATMENT W/O CC	0.4175	0.4177	0.0
454	21	MED	OTHER INJURY, POISONING & TOXIC EFF DIAG WITH CC	0.8873	0.9107	2.6
455	21	MED	OTHER INJURY, POISONING & TOXIC EFF DIAG W/O CC	0.4130	0.4166	0.9
456	22	MED	BURNS, TRANSFERRED TO ANOTHER ACUTE CARE FACILITY	1.7285	2.1688	25.5
457	22	MED	EXTENSIVE BURNS W/O O.R. PROCEDURE	2.0147	1.6312	-19.0
458	22	SURG	NON-EXTENSIVE BURNS W SKIN GRAFT	3.8787	3.7459	-3.4
459	22	SURG	NON-EXTENSIVE BURNS W WOUND DEBRIDEMENT OR OTHER O.R. PROC	1.8906	2.1042	11.3
460	22	MED	NON-EXTENSIVE BURNS W/O O.R. PROCEDURE	1.0032	1.0508	4.7
461	23	SURG	O.R. PROC W DIAGNOSES OF OTHER CONTACT W HEALTH SERVICES	0.8808	0.8656	-1.7
462	23	MED	REHABILITATION	1.7805	1.7205	-3.4
463	23	MED	SIGNS & SYMPTOMS W CC	0.7277	0.7249	-0.4
464	23	MED	SIGNS & SYMPTOMS W/O CC	0.4567	0.4591	0.5
465	23	MED	AFTERCARE W HISTORY OF MALIGNANCY AS SECONDARY DIAGNOSIS	0.3531	0.3740	5.9
466	23	MED	AFTERCARE W/O HISTORY OF MALIGNANCY AS SECONDARY DIAGNOSIS	0.5328	0.5516	3.5
467	23	MED	OTHER FACTORS INFLUENCING HEALTH STATUS	0.4469	0.4168	-6.7
468	.	SURG	EXTENSIVE O.R. PROCEDURE UNRELATED TO PRINCIPAL DIAGNOSIS	3.4195	3.4842	1.9
469	.	.	PRINCIPAL DIAGNOSIS INVALID AS DISCHARGE DIAGNOSIS	NV	NV	NV
470	.	.	UNGROUPABLE	NV	NV	NV
471	8	SURG	BILATERAL OR MULTIPLE MAJOR JOINT PROCS OF LOWER EXTREMITY	3.8976	3.8651	-0.8
472	22	SURG	EXTENSIVE BURNS W O.R. PROCEDURE	11.7093	11.6933	-0.1
473	17	MED	ACUTE LEUKEMIA W/O MAJOR O.R. PROCEDURE AGE >17	3.4402	3.5702	3.8
474	.	.	NO LONGER VALID	NV	NV	NV
475	4	MED	RESPIRATORY SYSTEM DIAGNOSIS WITH VENTILATOR SUPPORT	3.5965	3.7175	3.4
476	.	SURG	PROSTATIC O.R. PROCEDURE UNRELATED TO PRINCIPAL DIAGNOSIS	2.2014	2.2361	1.6
477	.	SURG	NON-EXTENSIVE O.R. PROCEDURE UNRELATED TO PRINCIPAL DIAGNOSIS	1.4337	1.4628	2.0
478	5	SURG	OTHER VASCULAR PROCEDURES W CC	2.1645	2.1897	1.2
479	5	SURG	OTHER VASCULAR PROCEDURES W/O CC	1.2718	1.3027	2.4
480	.	SURG	LIVER TRANSPLANT	20.1614	19.4679	-3.4

Appendix E. Change in DRG Relative Weights from Fiscal Year 1993 to Fiscal Year 1994

DRG	MDC	TYPE	TITLE	FY 1993 WEIGHT	FY 1994 WEIGHT	PERCENT CHANGE
481	.	SURG	BONE MARROW TRANSPLANT	15.2244	14.3709	-5.6
482	.	SURG	TRACHEOSTOMY FOR FACE, MOUTH AND NECK DIAGNOSES	3.4826	3.5756	2.7
483	.	SURG	TRACHEOSTOMY EXCEPT FOR FACE, MOUTH AND NECK DIAGNOSES	16.6590	16.9858	2.0
484	24	SURG	CRANIOTOMY FOR MULTIPLE SIGNIFICANT TRAUMA	6.5706	5.6612	-13.8
485	24	SURG	LIMB REATTACH., HIP AND FEMUR PROCS FOR MULTI SIGN TRAUMA	3.1669	3.2361	2.2
486	24	SURG	OTHER O.R. PROCEDURES FOR MULTIPLE SIGNIFICANT TRAUMA	4.8231	4.6756	-3.1
487	24	MED	OTHER MULTIPLE SIGNIFICANT TRAUMA	1.9406	1.9379	-0.1
488	25	SURG	HIV W EXTENSIVE O.R. PROCEDURE	4.1539	4.3859	5.6
489	25	MED	HIV W MAJOR RELATED CONDITION	1.9151	1.8468	-3.6
490	25	MED	HIV W OR W/O OTHER RELATED CONDITION	1.1285	1.1174	-1.0
491	8	SURG	MAJOR JOINT & LIMB REATTACHMENT PROCEDURES-UPPER EXTREMITY	1.5676	1.6092	2.7
492	17	MED	CHEMOTHERAPY WITH ACUTE LEUKEMIA AS SECONDARY DIAGNOSIS	2.7815	3.5861	28.9
493	7	SURG	LAPAROSCOPIC CHOLECYSTECTOMY W/O C.D.E. WITH CC	NC	1.5268	NC
494	7	SURG	LAPAROSCOPIC CHOLECYSTECTOMY W/O C.D.E. W/O CC	NC	0.8233	NC

* DRG definition substantially revised for discharges occurring on or after October 1, 1991.

NC Denotes a new DRG category defined for discharges occurring on or after October 1, 1991.

NV Denotes a DRG category that is not valid for classification and payment under PPS.

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